Universitätsspital Basel

UNI BASEL

Medizinische Onkologie

Therapeutische Realität beim nicht-klarzelligen Nierenzellkarzinom (ncc-RCC)

Jahrestagung DGHO, ÖGHO, SGHO
13.10.2024

Frank Stenner

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Deklaration meiner möglichen Interessenskonflikte

Gewährung von Reisekosten, Advisory Boards, Studien- und/ oder Forschungsunterstützung

- Bayer
- BMS
- MSD
- Roche
- IPSEN

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Überblick der Nierenzellkarzinome (klar + *nicht*-klarzellige)

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	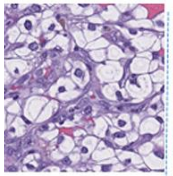	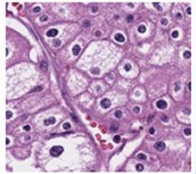	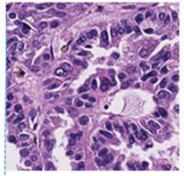	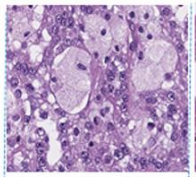	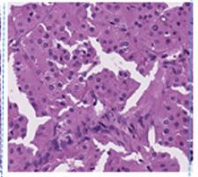	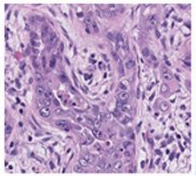	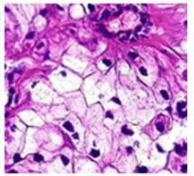	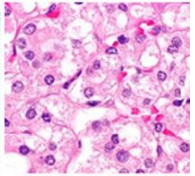
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Überblick der Nierenzellkarzinome (klar + *nicht*-klarzellige)

Neue ICD-O-3.2. nennt 52 Untergruppen

8310/3 Clear cell renal cell carcinoma
..
8260/3 Papillary renal cell carcinoma
..
8319/3 Collecting duct carcinoma
..
8960/3 Nephroblastoma
..

Moch H, et al. The 2022 World Health Organization Classification of Tumours of the Urinary System and Male Genital Organs-Part A: Renal, Penile, and Testicular Tumours. Eur Urol. 2022 Nov;82(5):458-468

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Überblick der Nierenzellkarzinome (klar + *nicht*-klarzellige)

Molecularly defined renal carcinomas	
8311/3	*TFE3*-rearranged renal cell carcinomas
8311/3	*TFEB*-altered renal cell carcinomas
8311/3	*ELOC* (formerly *TCEB1*)-mutated renal cell carcinoma
8311/3	Fumarate hydratase–deficient renal cell carcinoma
8311/3	Hereditary leiomyomatosis and renal cell carcinoma syndrome–associated renal cell carcinoma
8311/3	Succinate dehydrogenase–deficient renal cell carcinoma
8311/3	*ALK*-rearranged renal cell carcinomas
8510/3	Medullary carcinoma, NOS
8510/3	SMARCB1-deficient medullary-like renal cell carcinoma
8510/3	SMARCB1-deficient undifferentiated renal cell carcinoma, NOS
8510/3	SMARCB1-deficient dedifferentiated renal cell carcinomas of other specific subtypes

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	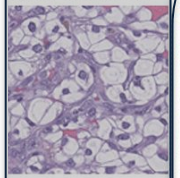	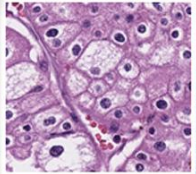	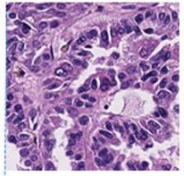	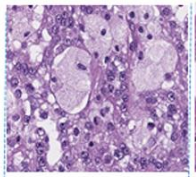	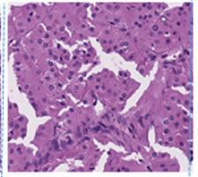	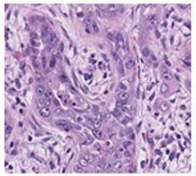	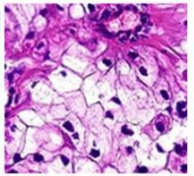	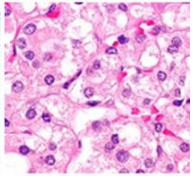
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	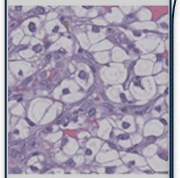	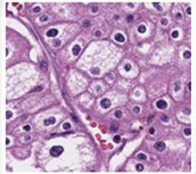	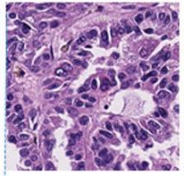	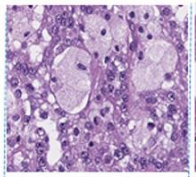	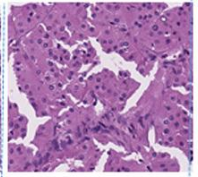	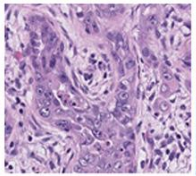	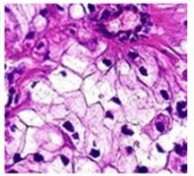	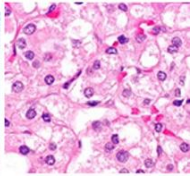
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	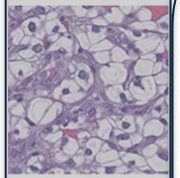	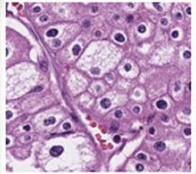	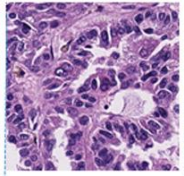	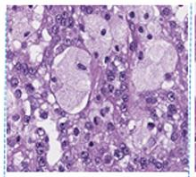	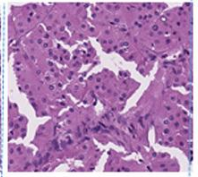	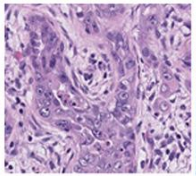	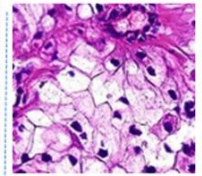	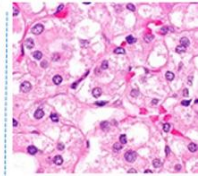
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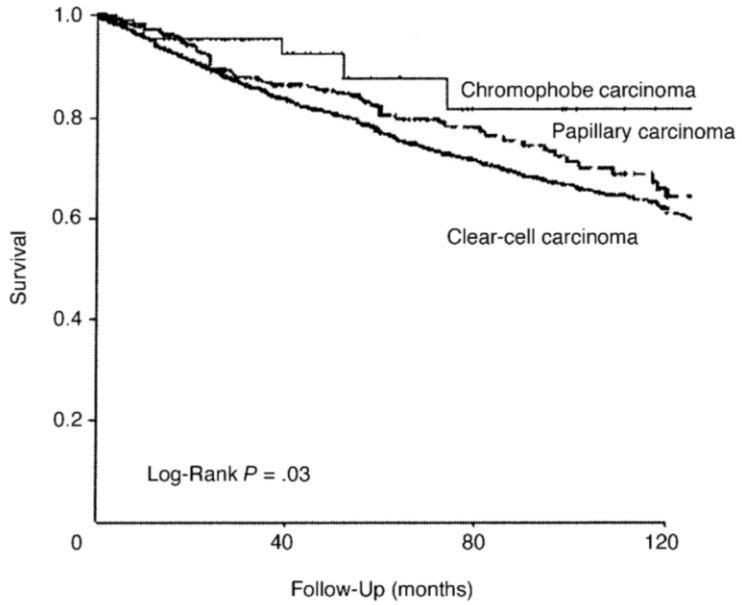
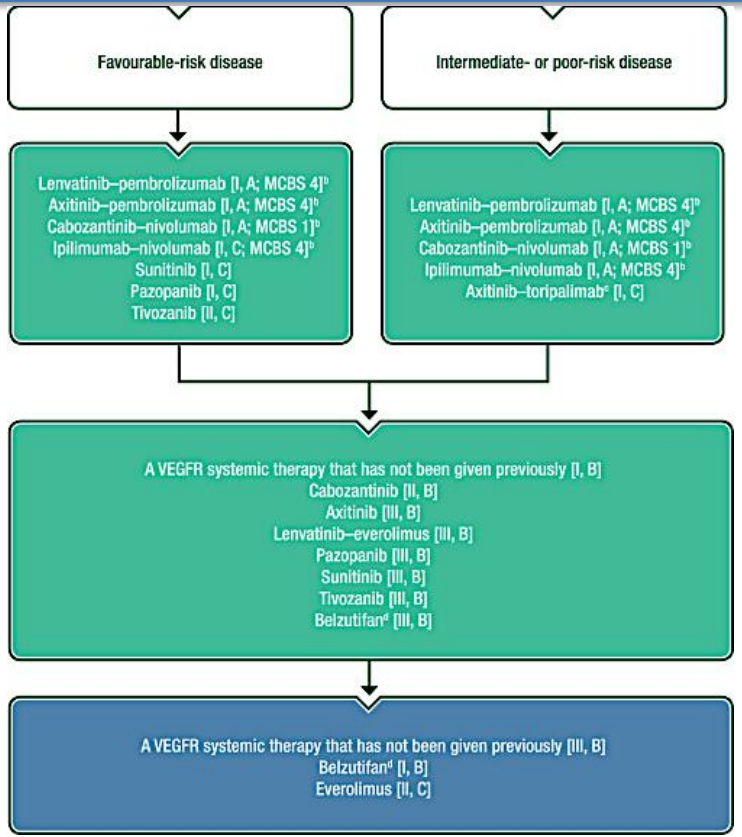
Prognose – RCC (cc-/ ncc-RCC)



n=4063
50% T1-T2
50% T3-T4
25% metastatic

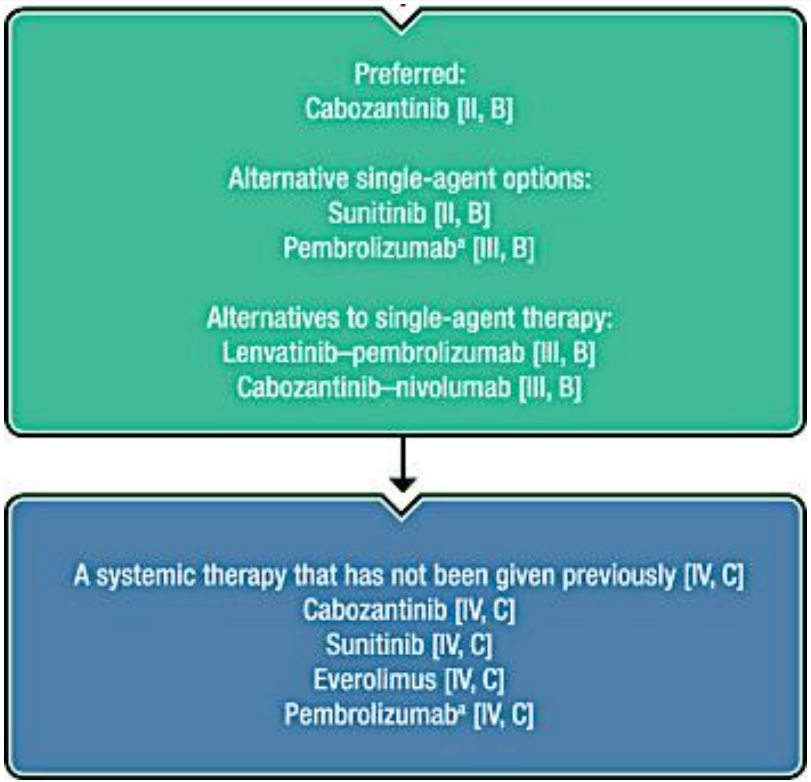
Pattard et al. J Clin Oncol 2005 Apr 20;23(12):2763-71. doi: 10.1200/JCO.2005.07.055

Therapieoptionen beim cc-RCC



Renal cell carcinoma: ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up Powles, T. et al. Annals of Oncology, Volume 35, Issue 8, 8-2024

Therapie der papillären RCC (pRCC)



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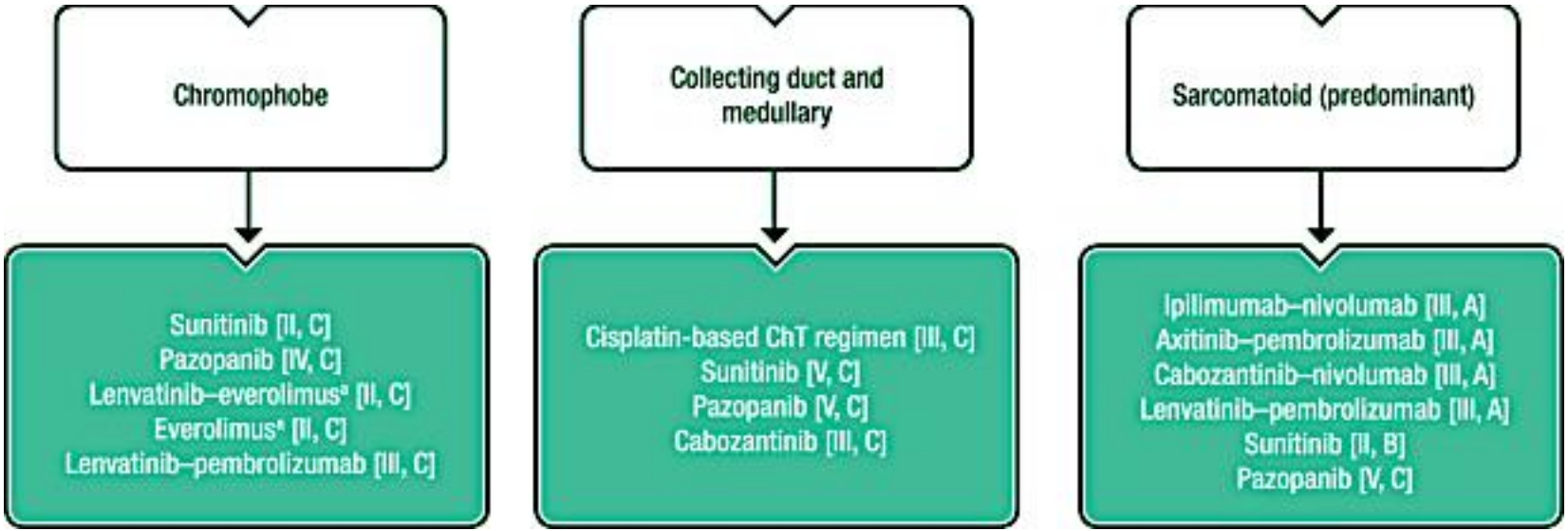
Therapie der nicht-papillären nicht-klarzelligen RCC (np ncc RCC)



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TKI als SOC für ncc-RCC

Sunitinib[5]	61 pts.	13%[a] 11%[b] RR	6.6 mos[a] 5.5 mos[b] PFS	• Prospective analysis • Included both type I (n=15) and type II (n=46) papillary *Ravaud A et al Annal Oncol 2012,23 (Suppl 9) #707PD*

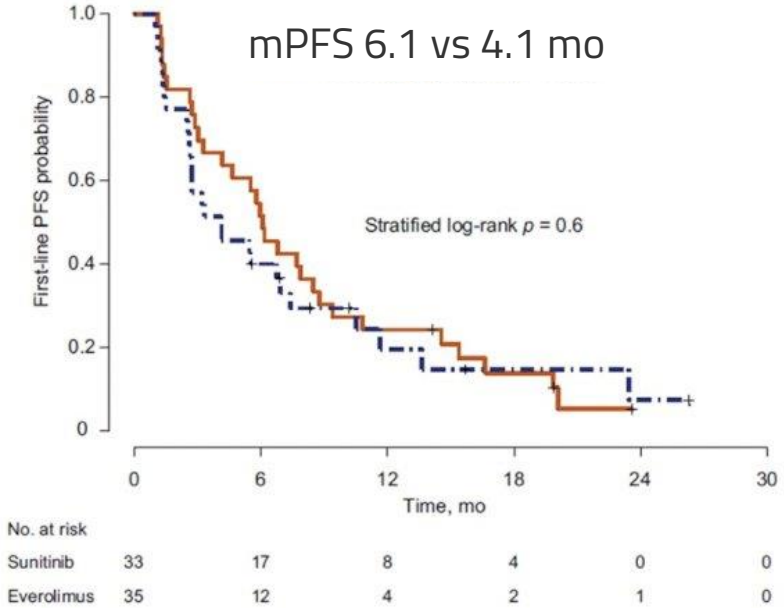
Sunitinib als langjähriger Therapiestandard für ncc-RCC:

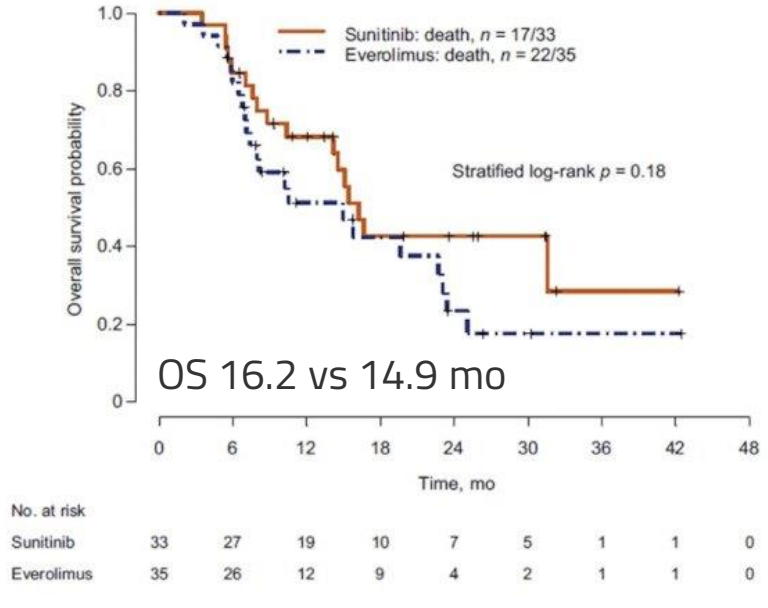
SUPAP[1] (n=61), ASPEN[2*] (n=81), ESPN[3*] (n=73) und RECORD-3[4*] (n=66)

*Sun vs EVe

1.Ravaud A et al., Ann Oncol 2015; 2.Armstrong AJ et al., Lancet Oncol 2016, 3.Tannir N et al., Eur Urol 2016; 4.Motzer RJ et al., J Clin Oncol 2014; 5.Knox JJ et al., Ann Oncol 2017

TKI für ncc-RCC





ORR 9% (Sun) versus 3% (Eve)

Tannir NM, et al. Everolimus versus sunitinib prospective evaluation in Metastatic Non-clear cell renal cell carcinoma (ESPN): A Randomized Multicenter phase 2 trial. Eur Urol 2016;69(5):866-

Therapie der metastasierten papillären RCC (pRCC)

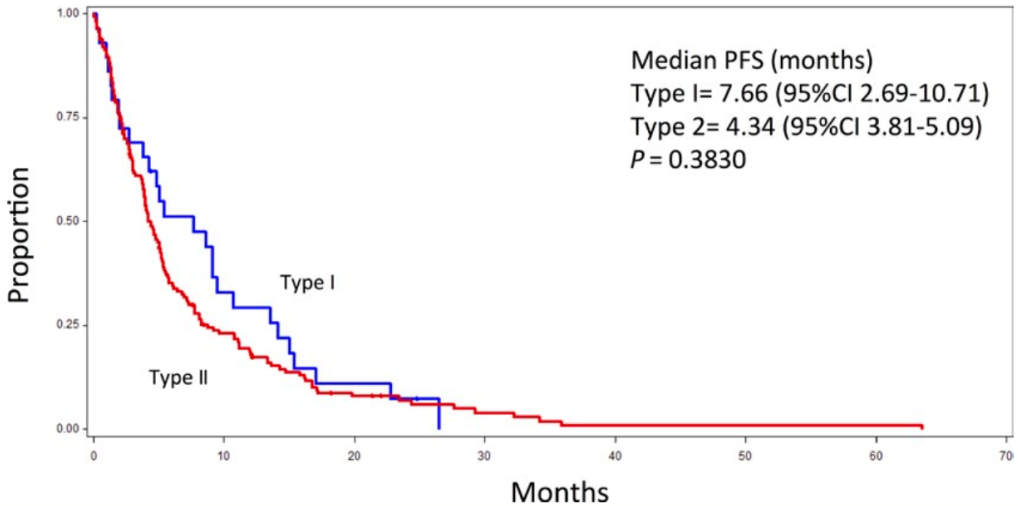


Figure 2. Kaplan–Meier curve depicting the progression-free survival of type I (*n* = 30) and type II (*n* = 165) metastatic papillary renal cell carcinoma patients treated with targeted therapy.

Wells, JC et al. for the IMDC - Characterizing the outcomes of metastatic papillary renal cell carcinoma - Cancer Medicine 2017

Therapie der metastasierten papillären RCC (pRCC)

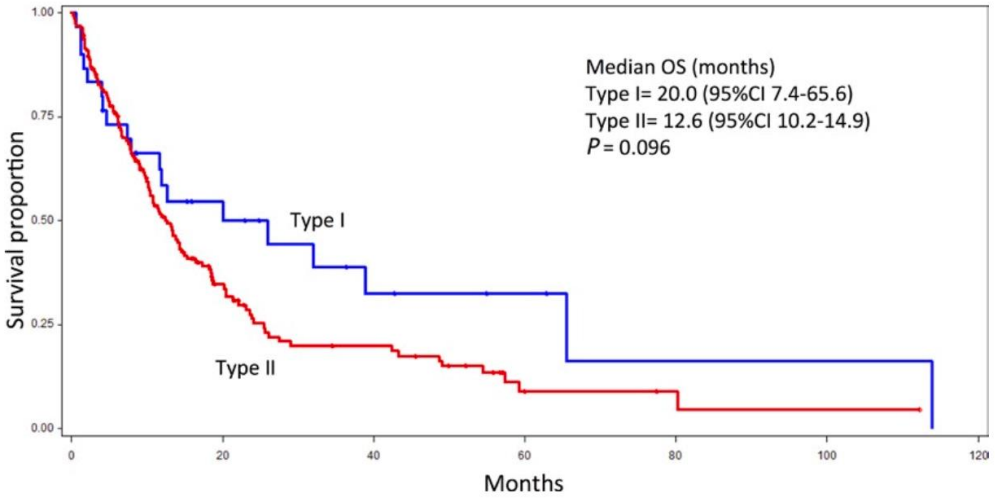
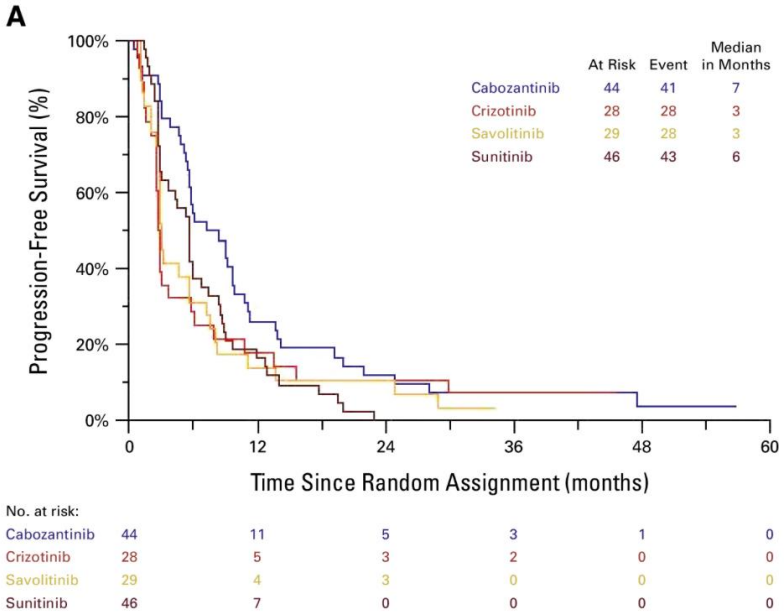
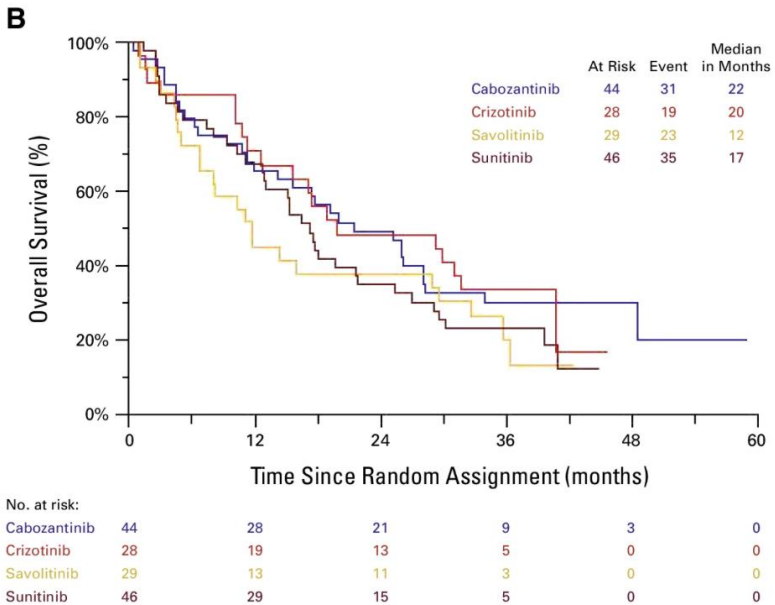


Figure 1. Kaplan–Meier curve depicting the overall survival of type I (*n* = 30) and type II (*n* = 165) metastatic papillary renal cell carcinoma patients treated with targeted therapy.

Wells, JC et al. for the IMDC - Characterizing the outcomes of metastatic papillary renal cell carcinoma - Cancer Medicine 2017

Cabozantinib für ncc-RCC





ORR 23% (Cabo) vs. 4% (Sun) p=0.01

SWOG PAPMET Barata P et al. JCO https://doi.org/10.1200/JCO.24.00767

Real World Outcome ccRCC vs. pRCC

Metastatic Papillary Renal Cell Carcinoma Outcomes J. Connor Wells et al.

Table 2. Outcomes in response to targeted therapy for ccRCC (clear cell renal cell carcinoma) and papillary renal cell carcinoma (pRCC).

	ccRCC (*n* = 5008)	pRCC (*n* = 466)	*P*-value
OS (months; 95% CI)	21.9 (20.9–22.9)	13.8 (12.5–16.1)	0.0001
PFS (months; 95% CI)	7.3 (6.9–7.7)	4.7 (4.1–5.2)	0.0001
RR to 1st Line TT	*n* (%)	*n* (%)	<0.0001
Complete response	110/4389 (2.5%)	3/391 (0.8%)	
Partial response	1234/4389 (28.1%)	37/391 (9.5%)	
Stable disease	1950/4389 (44.4%)	217/391 (55.5%)	
Progressive disease	1095/4389 (24.9%)	134/391 (34.3%)	
OS by IMDC prognostic group (months; 95% CI)			
Favorable	41.9 (38.0–44.8) (*n* = 783)	34.1 (18.6–49.1) (*n* = 43)	0.40
Intermediate	24.0 (22.8–25.1) (*n* = 2165)	17.0 (13.4–18.7) (*n* = 200)	0.0001
Poor	7.1 (6.5–8.0) (*n* = 971)	6.0 (4.1–7.9) (*n* = 116)	0.03

OS, overall survival; PFS, progression-free survival; RR, response rate; TT, targeted therapy; IMDC, International mRCC database consortium; CI, Confidence interval.

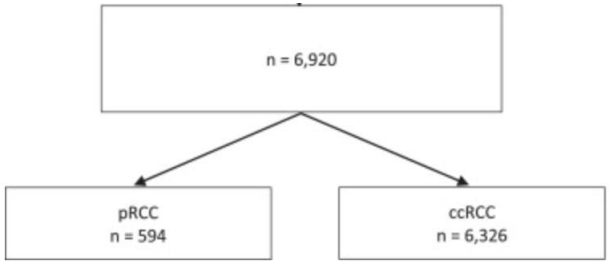
Wells, JC et al. for the IMDC - Characterizing the outcomes of metastatic papillary renal cell carcinoma - Cancer Medicine 2017

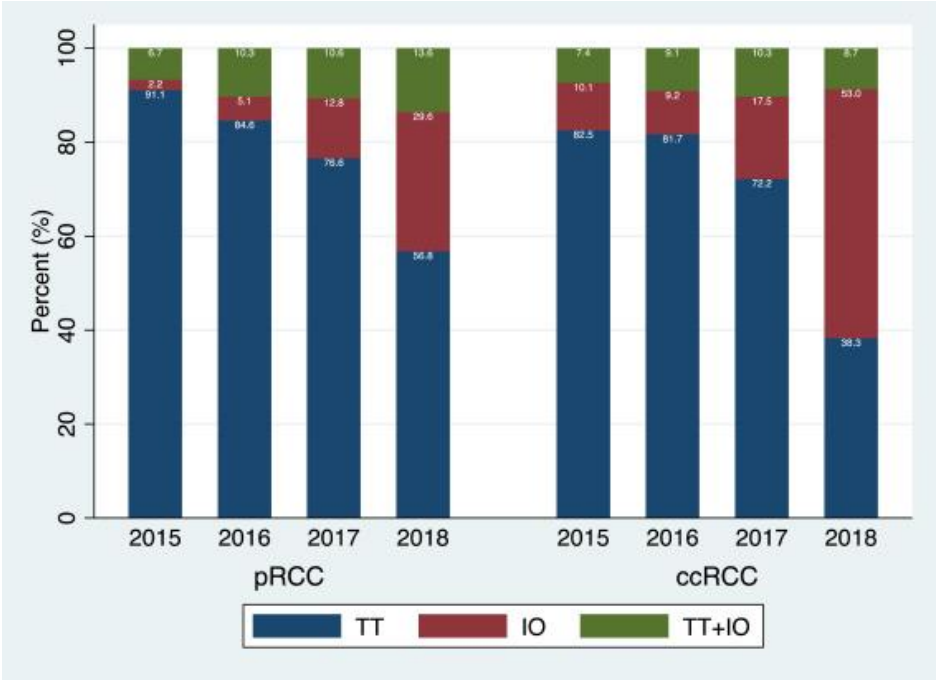
Therapie der ncc-RCC mit TKI

“If all you have is a hammer, everything looks like a nail.”

Abraham Maslow

„Real World“ Therapie des pRCC vs. ccRCC





Riveros C et al. Comparative real-world survival outcomes of metastatic papillary and clear cell renal cell carcinoma treated with immunotherapy, targeted therapy and combination therapy. Urologic Oncology: Seminars and Original Investigations, Volume 41, Issue 3, 2023

Real World Outcome pRCC vs. ccRCC

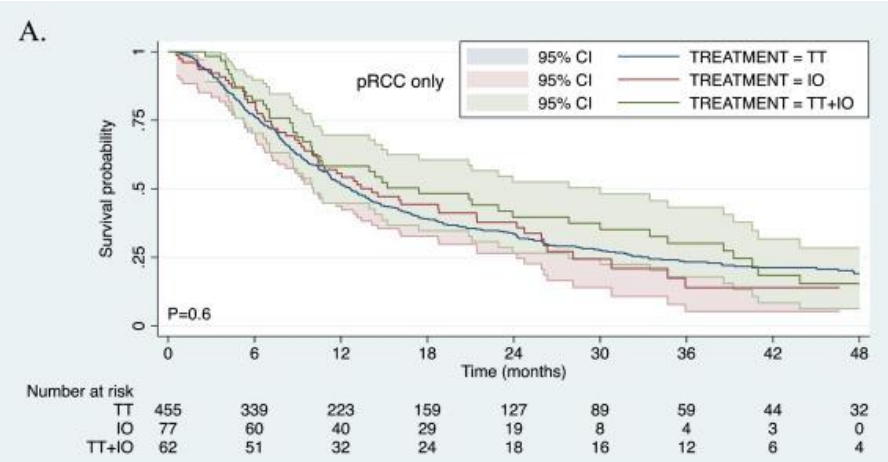
Table 2. Multivariable Cox regression for overall survival grouped by histology.

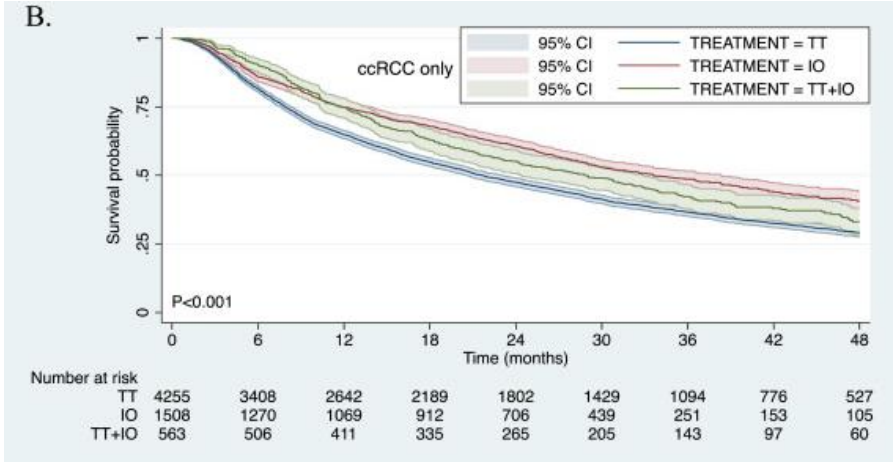
			aHR (95% CI)[a]	*P* value
pRCC	Treatment	TT	1.00 (reference)	
		IO	1.03 (0.75–1.42)	0.9
		TT+IO	0.90 (0.63–1.28)	0.6
	Cytoreductive nephrectomy	No	1.00 (reference)	
		Yes	0.59 (0.46–0.77)	<0.001
ccRCC	Treatment	TT	1.00 (reference)	
		IO	0.75 (0.68–0.82)	<0.001
		TT+IO	0.82 (0.72–0.93)	0.002
	Cytoreductive nephrectomy	No	1.00 (reference)	
		Yes	0.54 (0.50–0.58)	<0.001

ccRCC = clear-cell renal cell carcinoma; CI = confidence interval; HR = hazard ratio; IO = immunotherapy; pRCC = papillary renal cell carcinoma; TT = targeted therapy.

Riveros C et al. Comparative real-world survival outcomes of metastatic papillary and clear cell renal cell carcinoma treated with immunotherapy, targeted therapy and combination therapy. Urologic Oncology: Seminars and Original Investigations, Volume 41, Issue 3, 2023

Real World Outcome pRCC vs. ccRCC





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SUNNIFORECAST: IPI – Nivo für ncc-RCC

BARCELONA 2024 ESMO congress

Prospective Randomised Phase-II Trial of Ipilimumab/Nivolumab versus Standard of Care in *non-clear* Renal Cell Cancer

Results of the SUNNIFORECAST Trial

Lothar Bergmann, Frankfurt, Germany
Marit Ahrens, Laurence Albiges, Marine Gross-Goupil , Ektarini Boleti, Gwenaelle Gravis, Aude Flechon, Marc-Oliver Grimm, Jens Bedke, Philippe Barthelemy, Daniel Castellano, Begona Mellado, Philipp Ivanyi, Anne Flörcken, Cristina Suarez, Pablo Maroto, Viktor Grünwald, Iris Burkholder, Arndt Hartmann, John Haanen

UNIVERSITÄT FRANKFURT AM MAIN IAG-N AUO

SUNNIFORECAST: IPI – Nivo für ncc-RCC

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SUNNIFORECAST – Study design

Key Inclusion Criteria (KIC)

- Metastatic or locally advanced nccRCC (>50% ncc component):

  nccRCC subtypes: papillary, chromophobe, collecting duct carcinoma (CDC), renal medullary carcinoma (RMC), unclassified, etc., or sarcomatoid*
- No prior systemic therapy for RCC
- Tumor material available
- Measurable disease as per RECIST v1.1
- Karnofski performance status ≥ 70%
- No active CNS metastases

**sarcomatoid is defined for lesions with at least 20% sarcomatoid component*

Follow-up (median, range):
22.3 mos (0.5 – 70.2)

Principal Investigator and Coordinator:
Prof. Dr. L. Bergmann, Med. Klin. II, Goethe University, Frankfurt, Germany

R
1:1

Arm A
Nivolumab 3 mg/kg IV
+ Ipilimumab 1 mg/kg IV q3w
4 times
Followed by
Nivolumab
240 mg flat IV q2w or 480 mg flat q4w

Arm B
Standard of Care agent(s)

- until progression, unacceptable toxicity, or withdrawal of consent
- pts. may be treated beyond progression under protocol-defined circumstances

Stratification
- Histology (papillary vs non-papillary)
- IMDC score

Central pathological review

N=306 pts. (planned)

Primary Endpoint: OS rate at 12 months

Key Secondary Endpoints: OS, OS-rate at 6 and 18 months; PFS, ORR, TTP, Safety, QoL

Exploratory Endpoints: predictive biomarkers (e.g.PD-L1 expression)

CNS, central nervous system; IV, intravenous; ORR, objective response rate; TTP time to progression; OS, overall survival; PD-L1, programmed death ligand-1; PFS, progression-free survival; PO, oral; PS, performance status; R, randomized; RCC, renal cell carcinoma.

SUNNIFORECAST: IPI – Nivo für ncc-RCC

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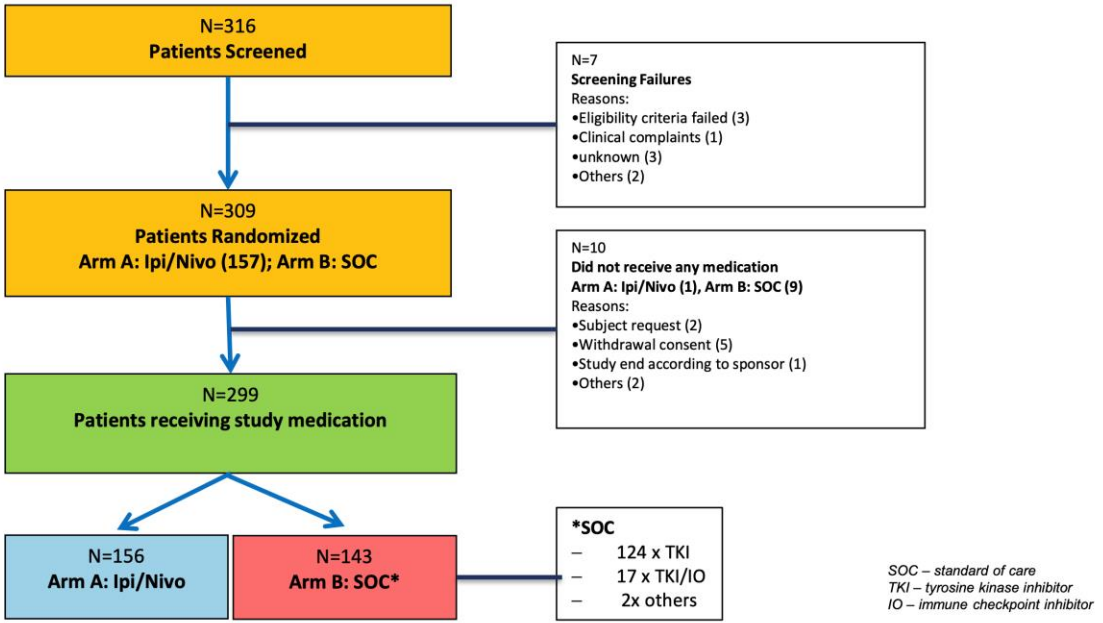
Consort Diagram



SOC – standard of care
TKI – tyrosine kinase inhibitor
IO – immune checkpoint inhibitor

SUNNIFORECAST: IPI – Nivo für ncc-RCC

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Histological subtypes

According to WHO classification 2022*

Subtypes of nccRCC (central pathological review)	Total N=309	Ipilimumab/Nivolumab N=157	Standard of Care (SOC) N=152	*p-value*
Papillary RCC	178 (57.6 %)	89 (56.7%)	89 (58.6%)	
Chromophobe RCC	60 (19.4 %)	28 (17.8%)	32 (21.2%)	
Renal medullary carcinoma	3 (1.0 %)	0 (0.0%)	3 (2.0%)	
Translocation RCC (TFE, TEFEB)	17 (5.5%)	12 (7.6%)	5 (3.3%)	
Tubulocystic RCC	3 (1.0 %)	3 (1.9%)	0 (0.0%)	
Mucinous tubular and spindle cell carcinoma	1 (0.3 %)	1 (0.6%)	0 (0.0%)	
Sarcomatoid	14 (4.5 %)	8 (5.1%)	6 (3.9%)	*p=0.17*
Ductus Bellini carcinoma	3 (1.0%)	0 (0.0%)	3 (2.0%)	
Others	21 (6.7 %)	11 (7.0%)	10 (6.6%)	

** Moch H, Amin MB, Berney DM, et al. The 2022 World Health Organization Classification of Tumours of the Urinary System and Male Genital Organs-Part A: Renal, Penile, and Testicular Tumours. Eur Urol. 2022 Nov;82(5):458-468.*

SUNNIFORECAST: IPI – Nivo für ncc-RCC

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Patient characteristics

	Total (N=309)	Ipilimumab/ Nivolumab (N=157)	Standard of care (SOC) (N=152)	p-value
Age (median, range)	62.3 (18.8 -86.2)	61.4 (18.8 – 81.8)	64 (19.4 – 86.2)	*p=0.69*
Sex no. (%) male female	 219 (70.9) 90 (29.1)	 112 (71.3) 45 (28.7)	 107 (70.4) 45 (29.6)	*p=0.83*
Karnofsky score no. (%) 100 90 80 70 ≤60 missing	 162 (52.4) 76 (24.6) 51 (16.5) 16 (5.2) 1 (0.3) 3 (1.0)	 80 (51.0) 34 (21.7) 27 (17.2) 12 (7.6) 1 (0.6) 3 (1.9)	 82 (53.9) 42 (27.6) 24 (15.8) 4 (2.6)	*p=0.20*
IMDC prognostic risk score no. (%) favorable: 0 intermediate: 1-2 poor: 3-6	 74 (23.9) 160 (51.8) 75 (24.3)	 39 (24.8) 79 (50.3) 39 (24.8)	 35 (23.0) 81 (53.3) 36 (23.7)	*p=0.87*
Prior therapies no. (%) any surgery nephrectomy/partial nephrectomy any radiotherapy	 237 (76.7) 213 (68.9) 29 (9.4)	 124 (79.0) 109 (69.4) 14 (8.9)	 113 (74.3) 104 (68.4) 15 (9.9)	*p=0.33*
Most common sites of metastases no. (%) lung liver bone lymph node others	 299 (22.0) 137 (10.1) 68 (5.1) 418 (30.8) 276 (20.3)	 161 (23.9) 55 (8.2) 32 (4.8) 210 (31.1) 139 (20.6)	 138 (20.1) 82 (12.0) 37 (5.4) 208 (30.4) 137 (20.0)	*p=0.01*
Time since initial diagnosis mos (median, range)	30.9 (1.3 -1416.6)	33.6 (1.9 -1416.6)	25.4 (1.3 – 1097.7)	*p=0.30*

SUNNIFORECAST: IPI – Nivo für ncc-RCC

Overall Response

Histology	Treatment	CR	PR	ORR	SD	PD
all nccRCC (N=247*)	Nivo/Ipi	10 (8.0%)	31 (24.8%)	41 (32.8%)	41 (32.8%)	43 (34.4%)
	SOC	2 (1.6%)	22 (18.0%)	124 (19.6%)	75 (61.5%)	23 (18.9%)
	p=0.001					

SUNNIFORECAST: IPI – Nivo für ncc-RCC

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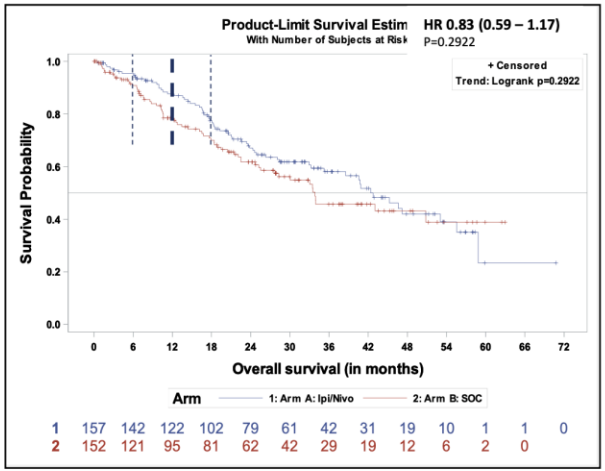
Overall survival rate and OS

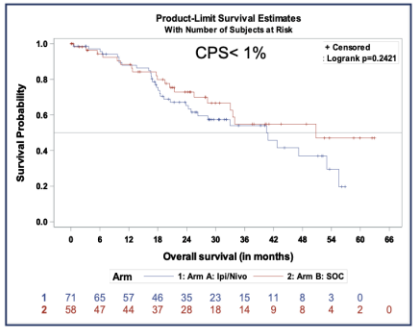
	Total N=309	Ipilimumab/ Nivolumab N=157	Standard of Care (SOC) N=152	*p-value*
OS rate at 12 mos (95%-CI)	**82.5%** (77.46% - 86.46%)	**86.9%** (80.24% - 91.46%)	**76.8%** (68.62% - 83.09%)	***p=0.0141***
OS rate at 6 mos (95%-CI)	92.8% (95.27% - 2.83%)	94.7% (89.72% - 97.32%)	90.0% (83.75% - 93.98%)	*p=0.067*
OS rate at 18 mos (95%-CI)	73.4% (67.67% - 78.28%)	76.6% (68.69% - 82.79%)	69.1% (60.25% - 76.34%)	*p=0.084*
OS mos (median, 95%-CI)	40.8 (33.2 - 47.21)	42.4 (35.24 – 55.54)	33.9 (25.52 – *)	*p=0.292*

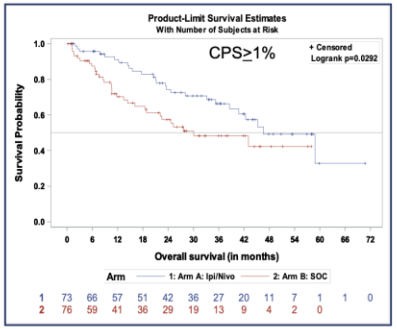


Median follow-up: 24.3 mos (0.5 -70.2)

SUNNIFORECAST: IPI – Nivo für ncc-RCC

PDL1 and OS

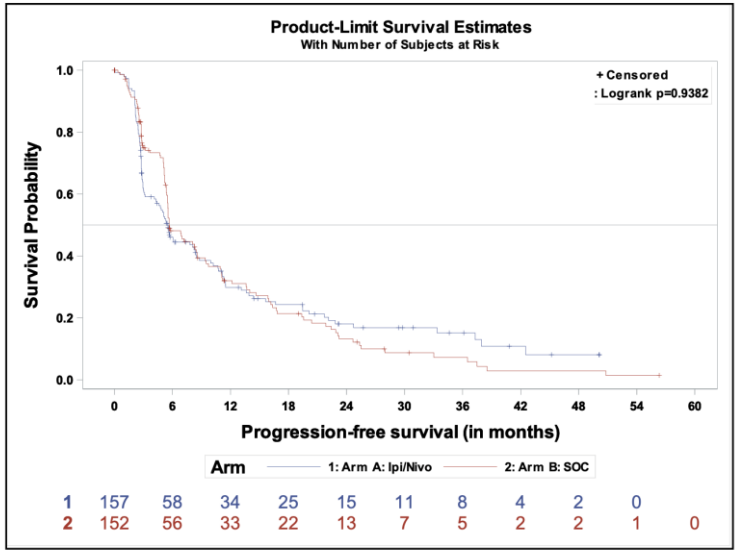




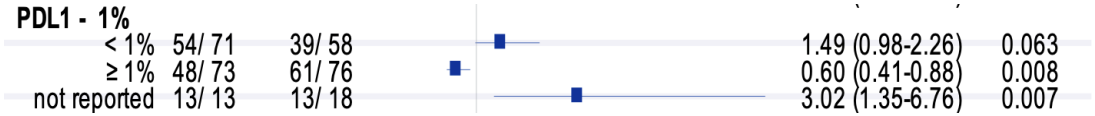
Baseline PDL1 CPS (OS – Univariate Cox regression)	**NIVO/IPI**	**SOC**	**HR**	**p-value**
< 1%	33/ 71	19/ 58	1.40 (0.79-2.46)	*p=0.244*
≥ 1 %	26/ 73	32/ 76	0.56 (0.33-0.95)	*p=0.031*
not reported	7/ 13	11/ 18	1.07 (0.41-2.81)	*p=0.884*

SUNNIFORECAST: IPI – Nivo für ncc-RCC

PFS



	IPI/Nivo	SOC
PFS mos.	5.52	5.65
(median, range)	4.30 – 8.23	5.49 – 8.46
	HR 0.99 (0.76-1.18)	



SUNNIFORECAST: IPI – Nivo für ncc-RCC

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Most frequent AEs

	IPI/Nivo		SOC		P-value
	All AEs (%)	Grad 3/4 (%)	All AEs (%)	Grad 3/4 (%)	
Skin reactions	48.4	3.1	**74.2**	2.1	*<0.001*
Fatigue	42.9	3.8	**63.7**	8.4	*<0.001*
Diarrhea	21.0	3.2	**45.1**	4.9	*<0.001*
Nausea	20.6	1.3	**31.5**	1.4	*0.008*
Mucositis	3.2	0.0	**36.4**	4.2	*<0.001*
Hypothyroidism	12.8	0.6	**21.7**	0.0	*0.046*
Hypertension	5.7	0.6	**38.5**	16.8	*<0.001*
Dysgeusa	3.8	0.0	**28.7**	0.0	*<0.001*
Pruritus	**25.0**	0.0	2.8	1.4	*<0.001*
Anorexia	7.7	0.0	**20.3**	0.7	*0.002*
ALT	14.1	5.7	12.6	0.0	*0.736*

«Therapieansprechen» ncc-/cc-RCC

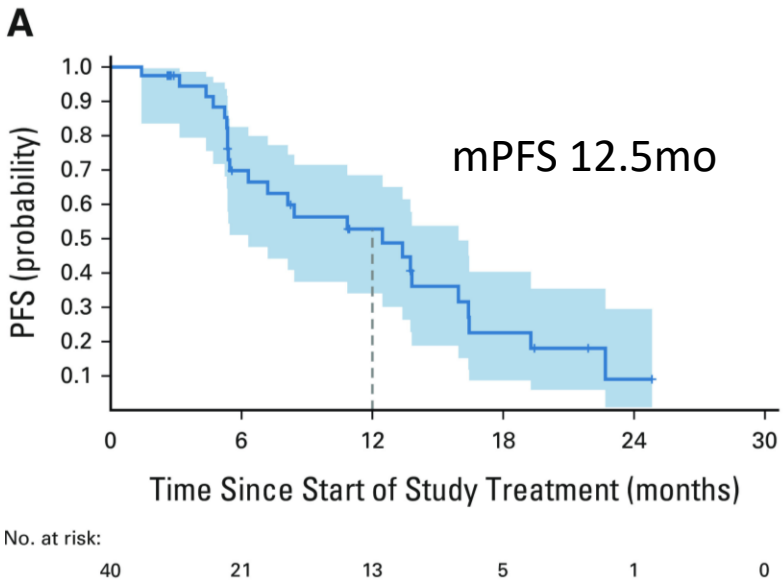
Studie	Sunniforecast		CM-214	KN426	CLEAR$^{i/p*}$
Regime	IPI+NIVO	SOC	IPI+NIVO	PEM+AXI	PEM + LEN
ORR %	33	20	42	59	72
CR %	8	1.6	10.5	5.8	14
PR %	25	18	31	54	59
SD %	33	62	30	25	17
PD %	34	18	22	11	6
NE %	2	6	7	4	5

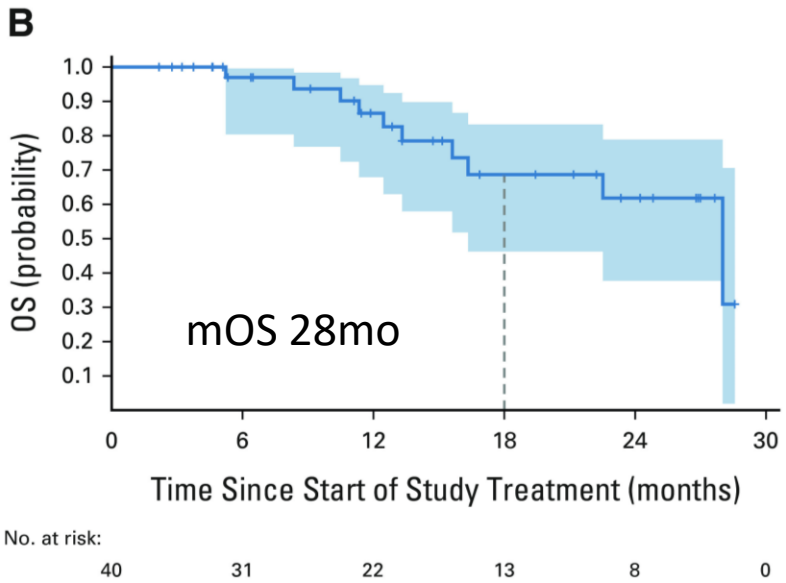
i/p intermediate/poor

Nichtklarzellige RCC Histologien Klarzellige RCC Histologien

*Grünwald V, et al. Analysis of the Phase 3 Randomized CLEAR Study,European Urology Oncology, Volume 6, Issue 4, 2023, Pages 437-446

TKI + I/O für ncc-RCC: Cabozantinib + Nivolumab

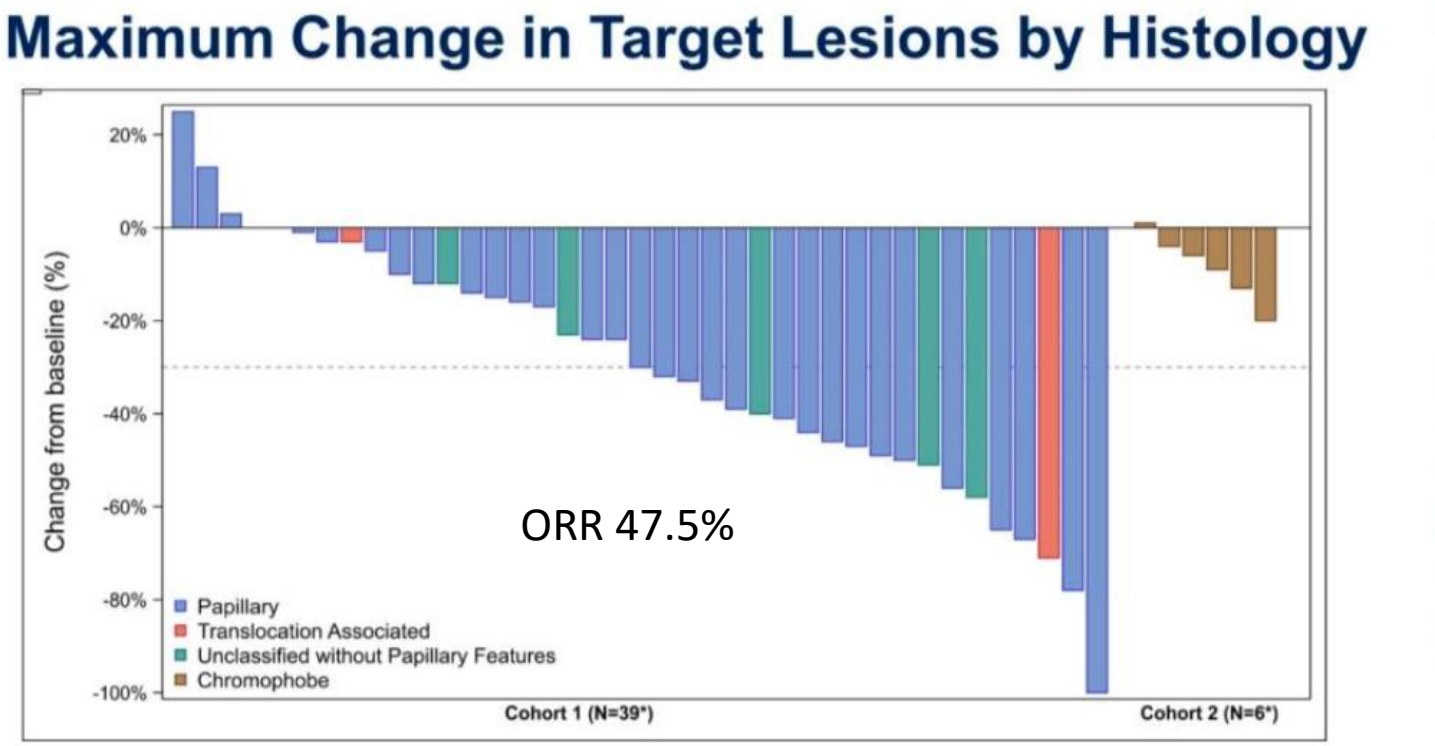




ORR 47.5%

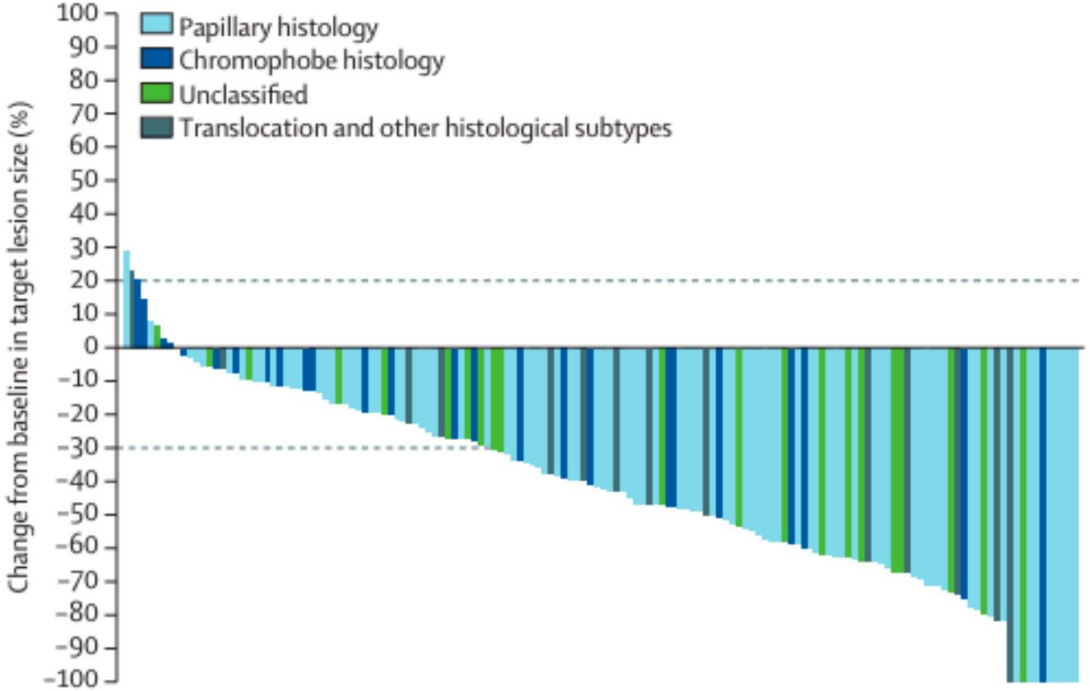
Lee CH et al. Phase II Trial of Cabozantinib Plus Nivolumab in Patients With Non-Clear-Cell Renal Cell Carcinoma and Genomic Correlates. J Clin Oncol. 2022 Jul 20;40(21):2333-2341

TKI + I/O ncc-RCC: Cabozantinib + Nivolumab



Lee CH et al. Phase II Trial of Cabozantinib Plus Nivolumab in Patients With Non-Clear-Cell Renal Cell Carcinoma and Genomic Correlates. J Clin Oncol. 2022 Jul 20;40(21):2333-2341

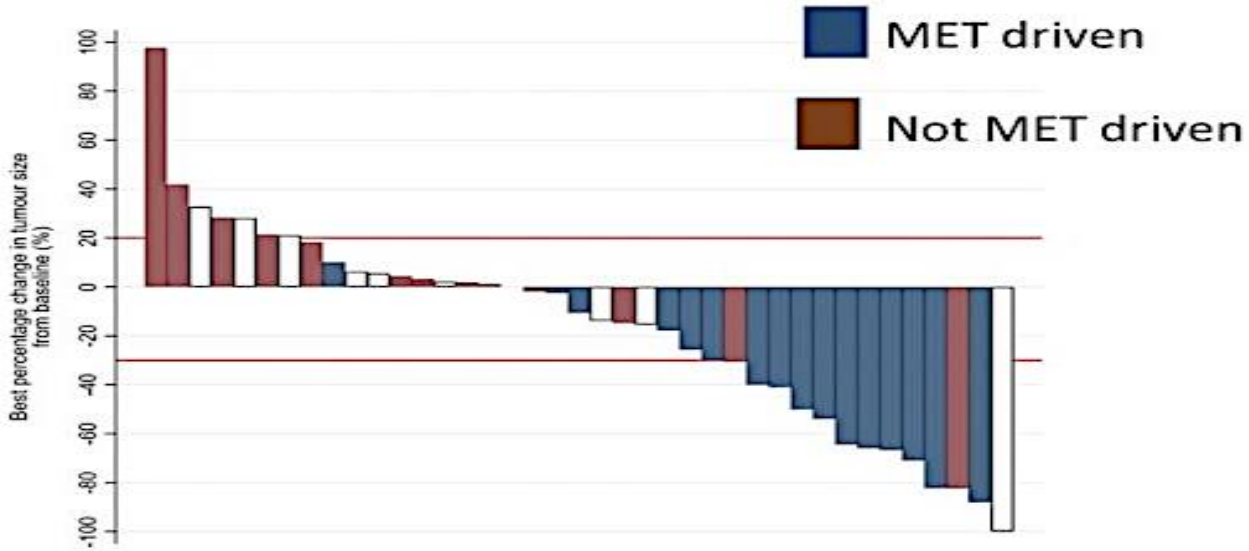
TKI + I/O für ncc-RCC: Len+Pembro



Papillary
ORR 53%

Albiges et al. Lancet Oncol 2023

MET getriebene pRCC - Savolitinib-Durvalumab

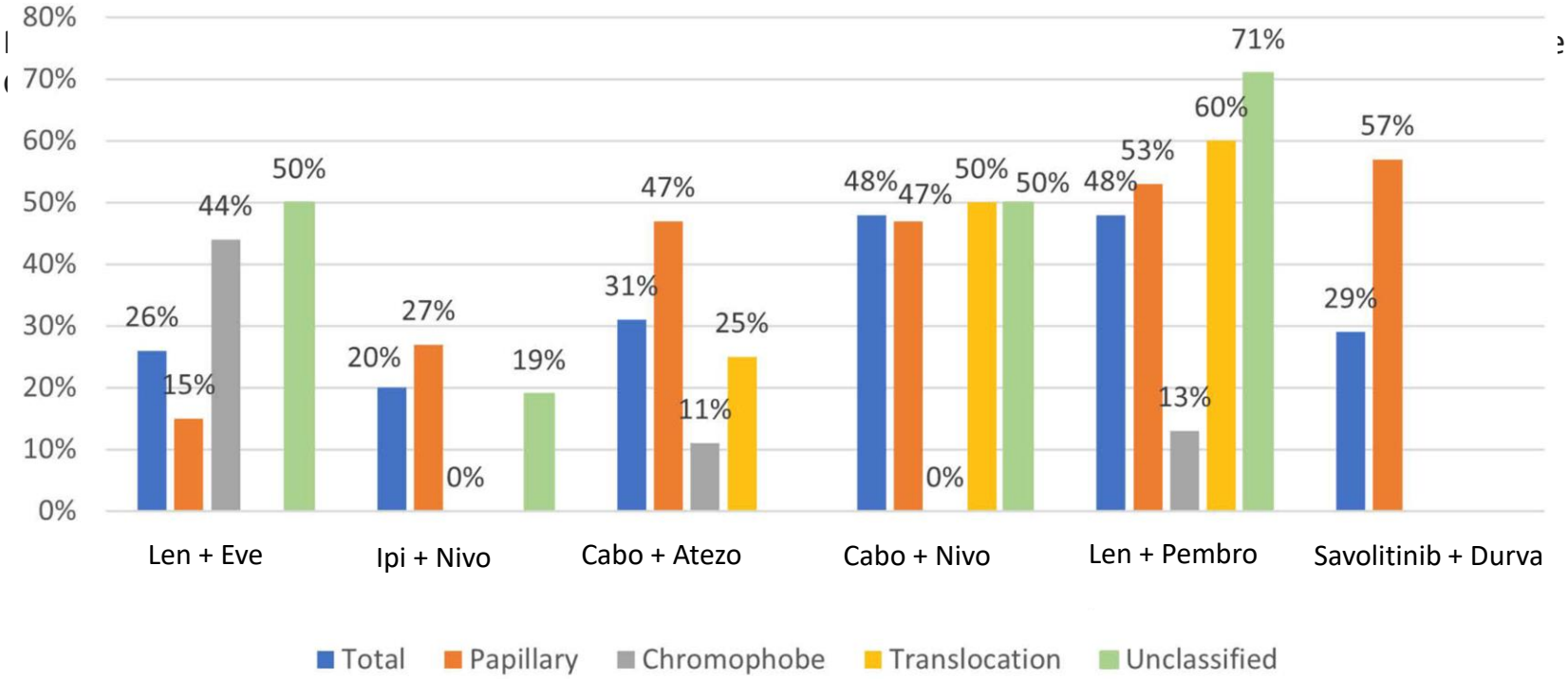


ORR 53%

MET driven papillary RCC n=17

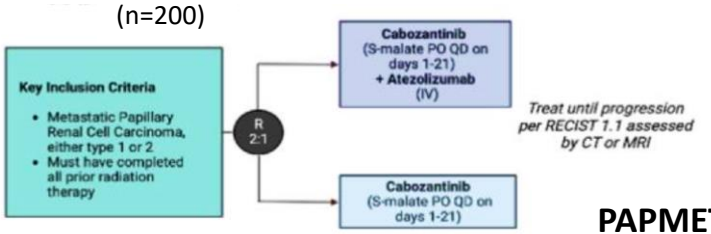
Suarez et al JCO 2023

Kombinationstherapien: Variante Histologien ORR%



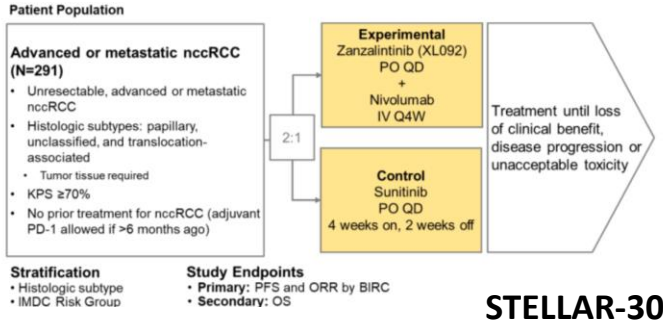
ASCO Daily news 2023 Serzan MT and McGregor BA

Laufende Studien zum ncc-RCC

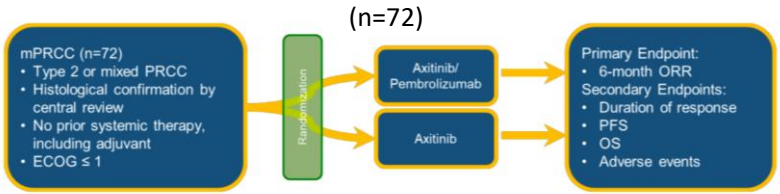


PAPMET2 Ph2

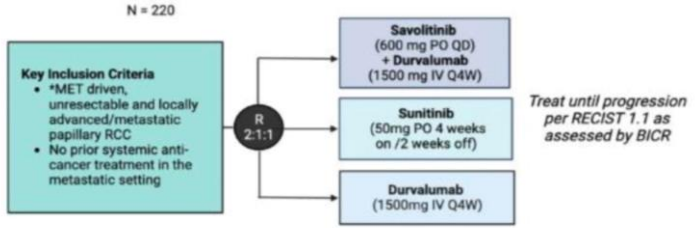
Primary Endpoint: Compare PFS with metastatic papillary renal cell carcinoma to cabozantinib S-malate with atezolizumab versus cabozantinib alone
Secondary Endpoint: OS, RECIST, ORR, quantitative and qualititive adverse events in each arm



STELLAR-304 Ph3



PAXIPEM Ph2

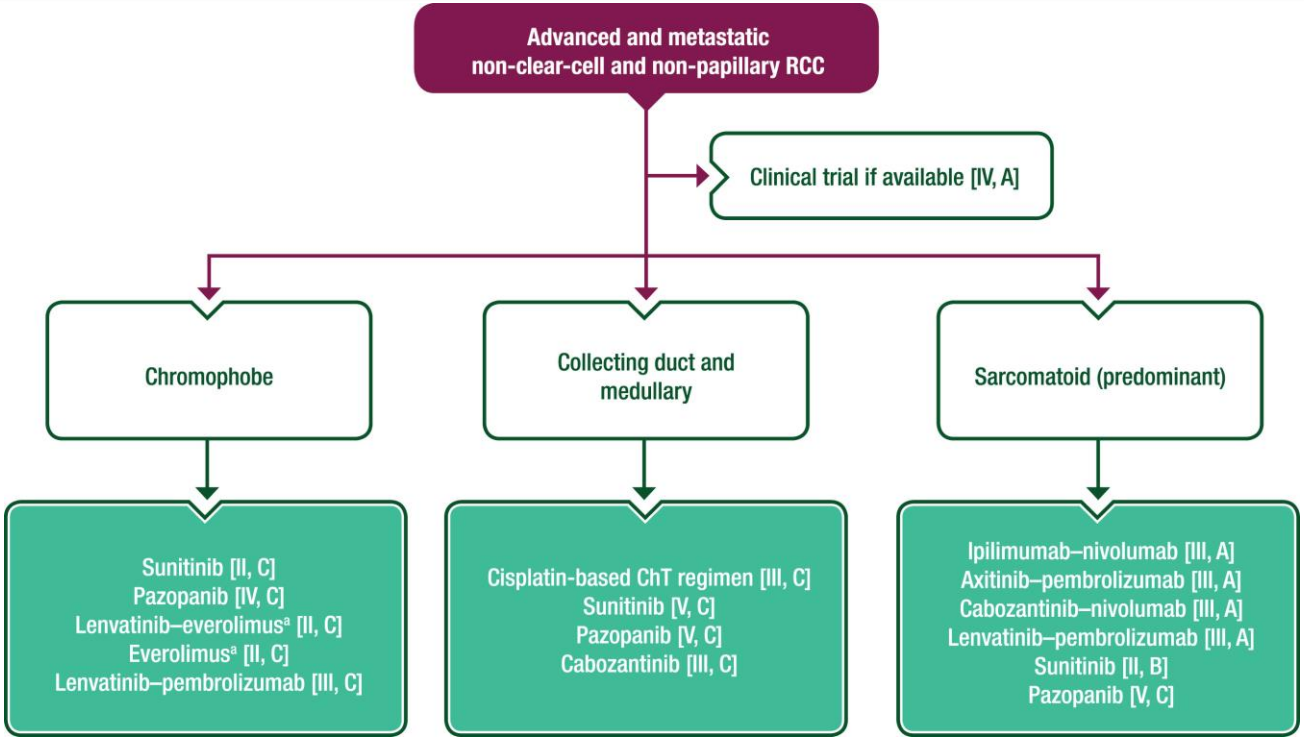


Primary Endpoint: PFS (Savolitinib plus Durvalumab relative to Sunitinib)
Secondary Endpoint: OS, ORR, DoR, DCR

SAMETA Ph3

CAN-I (NCT04413123): (n=60) alle ncc-RCC > Cabo-Ipi-Nivo 1.EP: ORR (Dez 2025)

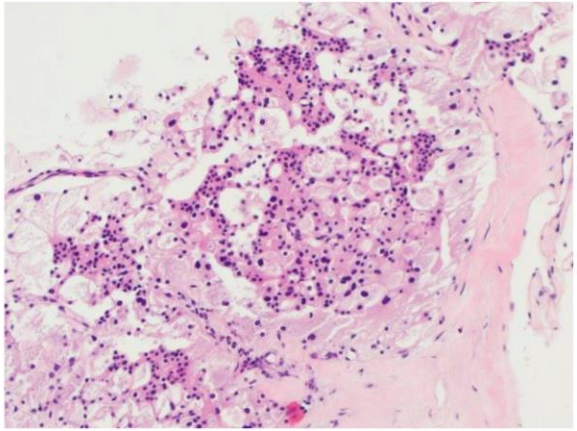
Therapie der übrigen nicht-klarzelligen RCC



Renal cell carcinoma: ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up Powles, T. et al. Annals of Oncology, Volume 35, Issue 8, 8-2024

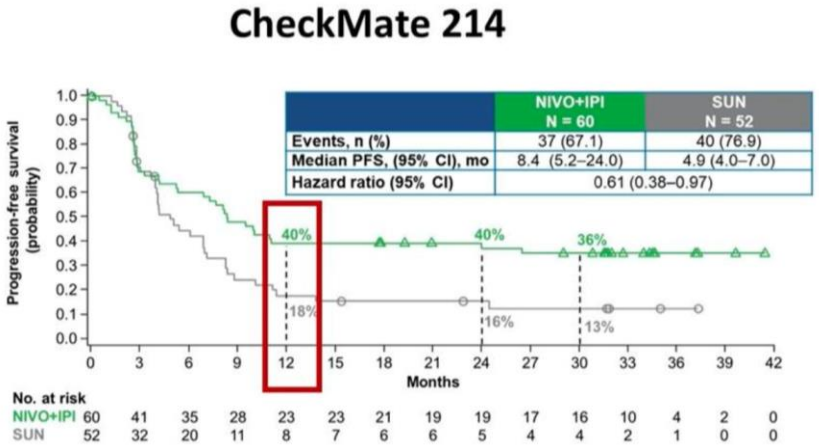
Sarkomatoide RCCs – eine eigene Entität?

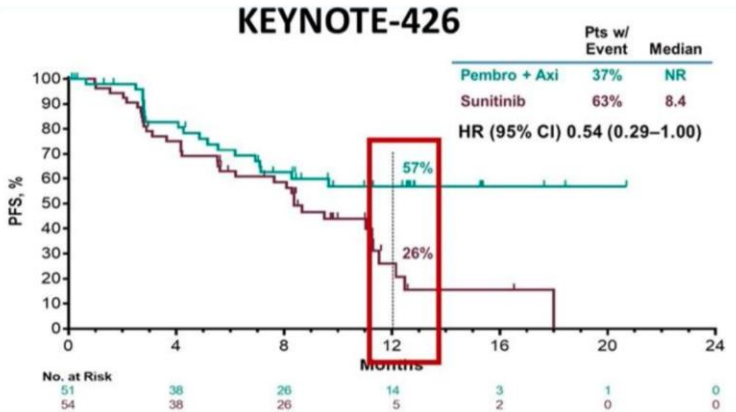
initial biopsy:
chromophobes RCC



Courtesy of Prof. L. Bubendorf, Pathology Dept. of University Hospital Basel

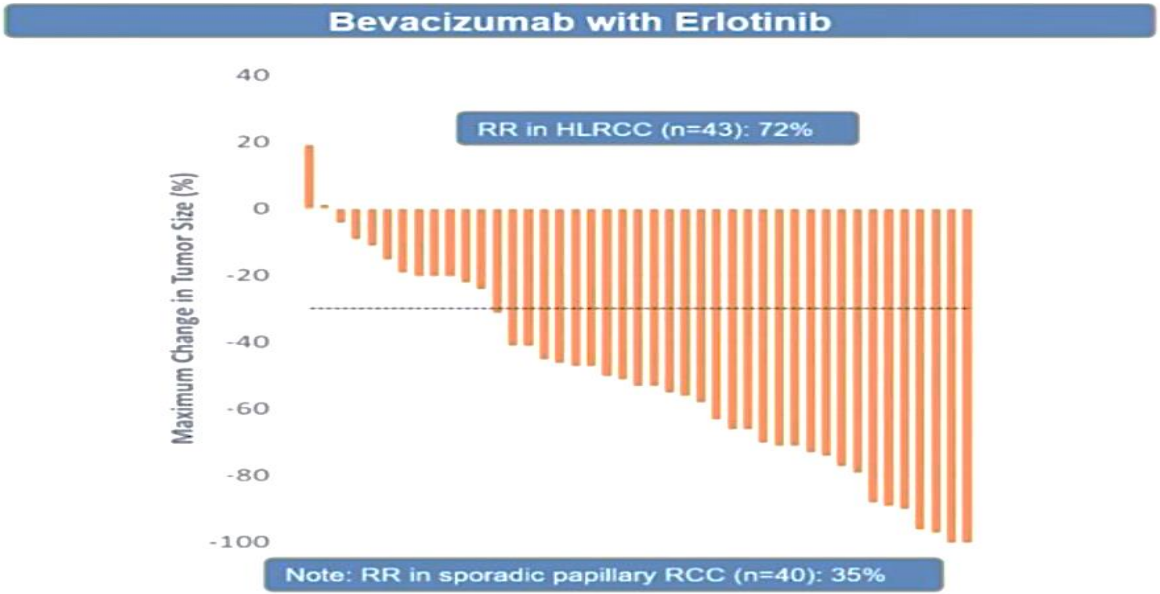
Sarkomatoide RCCs –> I/O + I/O oder TKI





Rini B et al. ASCO 2019, McDermott et al. ASCO 2019

Heriditäre Leiomyomatose und RCC (HLRCC)



Srinivasan *et al* ASCO 2022; NCT04981509

und die übrigen ncc-RCC

- Sammelrohrkarzinome (Ductus-Bellini-Karzinom) und SMARCB1-deficient RCC
  Therapie?: Platinbasierte Chemotherapie (RR:26%) oder Cabozantinib (RR:35%)

- FH-deficient RCC sind rar, aggressiv und oft mit Heriditäre Lyomyomatose und RCC (HLRCC) assoziiert
  Therapieoption Erlotininb + Bev

- ALK-rearranged RCC sind rar, aber einen Versuch mit einem ALK-Inhibitor wert (80%PR, 20% SD)

- Medulläre RCC: Gemcitabine+Doxorubicin oder Erlotinib + Bevacizumab RR: ≈20%

G. Procopio, et al. Cabozantinib as first-line treatment in patients with metastatic collecting duct renal cell carcinoma: results of the BONSAI trial Urologic-Oncology JAMA Oncol, 8 (6) (2022), pp. 910-913
R. Srinivasan et al. Results from a phase II study of bevacizumab and erlotinib in subjects with advanced hereditary leiomyomatosis and renal cell cancer (HLRCC) or sporadic papillary renal cell cancer JCO, 38 (s 15) (2020)
Iannantuono GM et al. Activity of ALK Inhibitors in Renal Cancer with ALK Alterations: A Systematic Review. Int J Mol Sci. 2022 Apr 3;23(7):3995
J.J. Tao,et al. ALK fusions in renal cell carcinoma: response to entrectinib JCO Precis Oncol, 2 (2018), pp. 1-8

Therapeutische Realität beim nicht-klarzelligen Nierenzellkarzinom

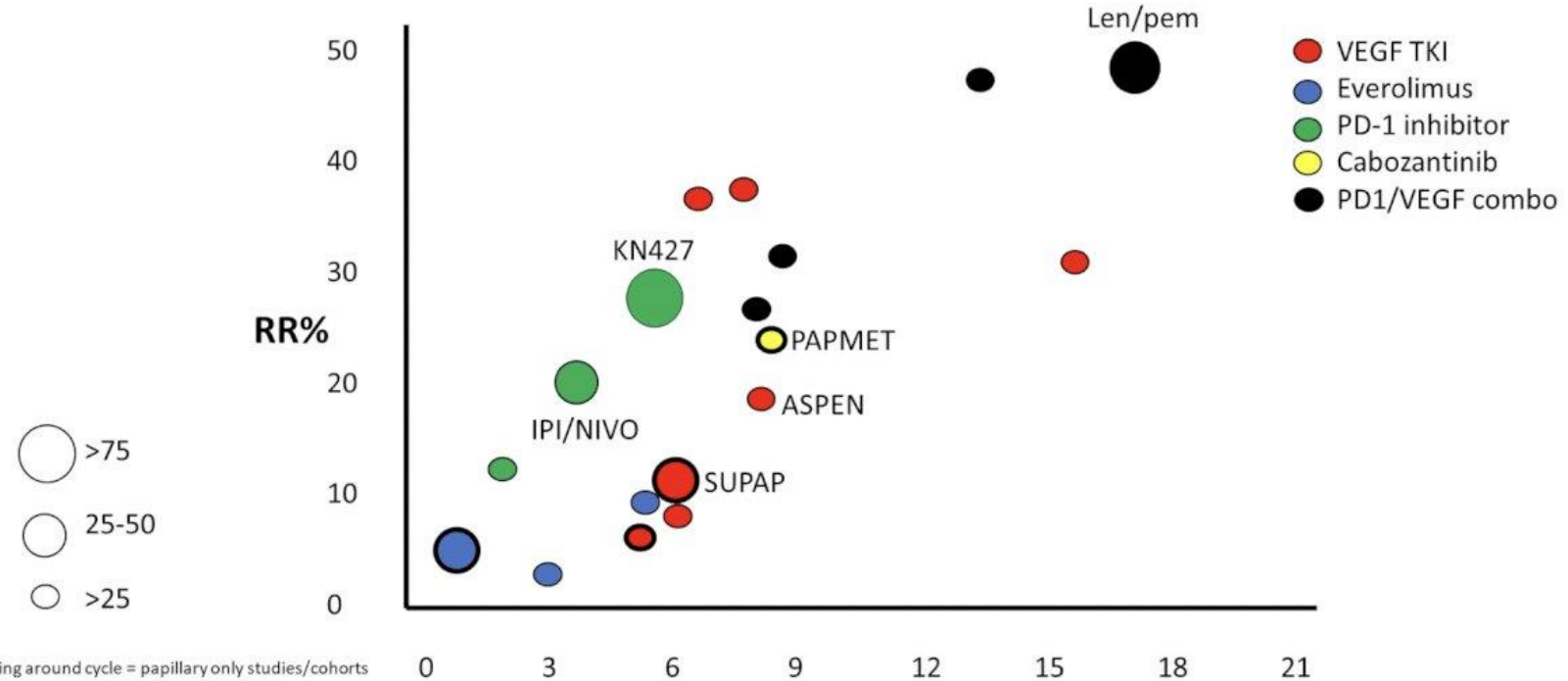
- Prognose der ncc-RCC bleibt schlechter als die der cc-RCC
- Erweiterung der Therapieoptionen ncc-RCC (I/O+I/O !)
- Beste Evidenz für pRCC
- Therapiesequenzen bleiben unklar
- In Zukunft eher tumoragnostische Ansätze für ncc-RCC

Vielen Dank !

frank.stenner@usb.ch

Backup slides

Effektivität von Kombinationstherapien bei ncc-RCC

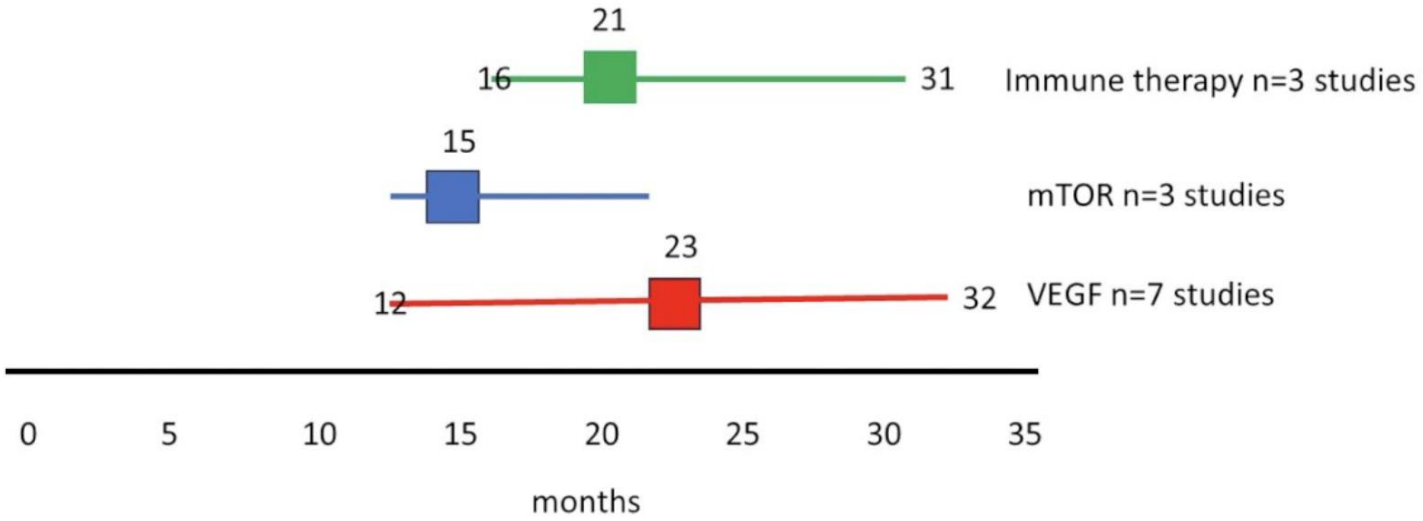


Black ring around cycle = papillary only studies/cohorts
Cross trial comparison-handle with caution
Not all trials had all data points available and some were<25 pts
Some studies had inconsistence in reporting related to multipe data cuts or different analysis

Tannir 2016, Armstrong 2016, Bergmann 2020, Jung 2018
Park 2018, Vogelzang 2020, Mcgregor 2020, Pal 2021, Lee 2022
Albiges 2023, Pal 2021 Ravaud 2015, Escudier 2015 McDermott 2015

slide credit Tom Powles

Effektivität von Kombinationstherapien bei ncc-RCC



slide credit Tom Powles