CAPRA-S: A Tool for Predicting Outcomes After Radical Prostatectomy[1,b,c]

Variable	Level	Points
PSA (ng/mL)	0–6	0
	6.01–10	1
	10.01–20	2
	>20	3
Gleason Score	2–6	0
	3+4	1
	4+3	2
	8–10	3
Surgical Margins (SM)	Negative	0
	Positive	2
Extracapsular Extension (ECE)	No	0
	Yes	1
Seminal Vesicle Invasion (SVI)	No	0
	Yes	2
Lymph Node Invasion (LNI)	No	0
	Yes	1

Overall score for any given patient is determined by adding up his points for each variable[1]

As in other nomograms, PSA and Gleason Score are important predictors of risk[1]

[a] University of California, San Francisco Cancer of the Prostate Risk Assessment. UCSF-CAPRA is a risk assessment tool developed from a cohort of radical prostatectomy patients (n=3837) in the CaPSURE™ database.[1]

[b] Adapted from Cooperberg et al. 2011 and Punnen et al. 2014.

[c] Eligibility for inclusion in the study was limited to men with prostate cancer diagnosed since 1992 who underwent prostatectomy as primary treatment and had at least 6 months of follow-up recorded in the registry. Those with clinically advanced disease (>cT3aN0M0) preoperatively were ineligible, as were those who had received neoadjuvant or adjuvant hormonal and/or radiation therapy.

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Results of Progression-Free Survival Analysis of CAPRA-S Score[†]

Score	No.	Progression-Free Probability[b,c] 3-Year	5-Year
0	1042	96.3	94.5
1	826	95.3	91.0
2	669	89.8	83.3
3	499	80.7	72.8
4	336	74.9	70.2
5	213	63.1	42.5
6	103	49.2	25.9
7	70	50.9	26.9
8	40	26.9	12.3
≥9	39	7.3	0

CAPRA-S indicates Cancer of the Prostate Risk Assessment post-Surgical.
†The table illustrates the number of patients at each score. Actuarial progression-free probability percentages at each score level at 3 and 5 years are given.

"No nomogram or scoring system can replace individualized clinician–patient decision making, which must consider life expectancy, utilities for quality of life outcomes, and treatment preferences."
— Cooperberg et al. 2011.[1]

UCSF-CAPRA was successfully validated utilizing the SEARCH, Shared Equal Access Regional Cancer Hospital, database.[2]

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[c] The definition of biochemical recurrence was either 2 consecutive PSA values higher than 0.2 ng/ml or any secondary treatment at least 6 months after surgery (treatment within 6 months was assumed to be adjuvant). Men not experiencing recurrence—including those dying of other causes—were censored at date of the last available PSA.

References: 1. Cooperberg MR, Hilton JF, Carroll PR. A Straightforward Tool for Improved Prediction of Outcomes After Radical Prostatectomy. **Cancer**. 2011;5039-5046.

2. Punnen S, Freedland SJ, et al. Multi-institutional Validation of the UCSF Cancer of the Prostate Risk Assessment for Prediction of Recurrence After Radical Prostatectomy. **Eur Urol**. 2014;6:1171-1177.