

- dependent weights. *Stata J.* 2017;17(1):181-207. doi:10.1177/1536867x1701700110
16. Patel HD, Kates M, Pierorazio PM, et al. Comorbidities and causes of death in the management of localized T1a kidney cancer. *Int J Urol.* 2014;21(11):1086-1092. doi:10.1111/iju.12527
 17. Smaldone MC, Kutikov A, Egleston BL, et al. Small renal masses progressing to metastases under active surveillance: a systematic review and pooled analysis. *Cancer.* 2012;118(4):997-1006. doi:10.1002/cncr.26369
 18. Uzosike AC, Patel HD, Alam R, et al. Growth kinetics of small renal masses on active surveillance: variability and results from the DISSRM registry. *J Urol.* 2018;199(3):641-648. doi:10.1016/j.juro.2017.09.087
 19. Organ M, Jewett M, Basiuk J, et al. Growth kinetics of small renal masses: a prospective analysis from the Renal Cell Carcinoma Consortium of Canada. *Can Urol Assoc J.* 2014;8(1-2):24-27. doi:10.5489/cuaj.1483
 20. Gupta M, Alam R, Patel HD, et al. Use of delayed intervention for small renal masses initially managed with active surveillance. *Urol Oncol.* 2019;37(1):18-25. doi:10.1016/j.urolonc.2018.10.001
 21. Pierorazio PM, Patel HD, Johnson MH, et al. Distinguishing malignant and benign renal masses with composite models and nomograms: a systematic review and meta-analysis of clinically localized renal masses suspicious for malignancy. *Cancer.* 2016;122(21):3267-3276. doi:10.1002/cncr.30268
 22. Pallauf M, Rezaee M, Elias R, et al. Tumour size is associated with growth rates of >0.5 cm/year and delayed intervention in small renal masses in patients on active surveillance. *BJU Int.* 2025;135(5):860-868. doi:10.1111/bju.16651
 23. Ball MW, An JY, Gomella PT, et al. Growth rates of genetically defined renal tumors: implications for active surveillance and intervention. *J Clin Oncol.* 2020;38(11):1146-1153. doi:10.1200/JCO.19.02263
 24. Kawaguchi S, Fernandes KA, Finelli A, Robinette M, Fleshner N, Jewett MAS. Most renal oncocytomas appear to grow: observations of tumor kinetics with active surveillance. *J Urol.* 2011;186(4):1218-1222. doi:10.1016/j.juro.2011.05.080
 25. Kurup AN, Thompson RH, Leibovich BC, et al. Renal oncocytoma growth rates before intervention. *BJU Int.* 2012;110(10):1444-1448. doi:10.1111/j.1464-410X.2012.011136.x
 26. Ball MW, Gorin MA, Bhayani SB, et al. Preoperative predictors of malignancy and unfavorable pathology for clinical T1a tumors treated with partial nephrectomy: a multi-institutional analysis. *Urol Oncol.* 2015;33(3):112.e9-112.e14. doi:10.1016/j.urolonc.2014.11.003
 27. Finelli A, Cheung DC, Al-Matar A, et al. Small renal mass surveillance: histology-specific growth rates in a biopsy-characterized cohort. *Eur Urol.* 2020;78(3):460-467. doi:10.1016/j.eururo.2020.06.053
 28. Menon AR, Hussein AA, Attwood KM, et al. Active surveillance for risk stratification of all small renal masses lacking predefined clinical criteria for intervention. *J Urol.* 2021;206(2):229-239. doi:10.1097/JU.0000000000001714
 29. Patel HD, Nichols PE, Su ZT, et al. Renal mass biopsy is associated with reduction in surgery for early-stage kidney cancer. *Urology.* 2020;135:76-81. doi:10.1016/j.urology.2019.08.043

EDITORIAL COMMENT

Alkhatib et al¹ provide important prospective data spanning 12 years and 958 patients from the Delayed Intervention and Surveillance for Small Renal Masses Registry, affirming the efficacy and safety of active surveillance (AS) for small renal masses. Despite being an established option, AS remains underutilized, with estimates of 3% to 10% of eligible patients receiving it as initial management.²

This study demonstrated extremely low renal cell carcinoma mortality rates with competing-risk cancer-specific survival at > 4 years: 0.19% for AS and 0.68% for primary intervention (PI), with no significant difference between the groups. Although overall survival favored PI, this likely reflects selection bias as PI patients were younger and healthier. The adjusted HR for all-cause mortality was 1.57 ($P = .005$), driven by noncancer deaths in the AS group. Growth rate (GR) predicted crossover to delayed intervention (DI) but was not associated with worse pathology or metastases. By contrast, tumor sizes > 3 cm had higher DI rates with more adverse pathology, more strongly predicting malignant behavior over GR alone, supporting the application of the National Cancer Institute's "3 cm rule" to select sporadic small renal masses. Recurrence after progression showed no significant differences between PI and DI groups. Renal mass biopsies (RMBs) were performed in ~12% of patients, with only 82% sensitivity and 67% specificity; this

showed RMBs may help guide management but are not required.

By contrast, Roswell Park's single-center experience of 123 patients with AS (149 tumors) over 5 years used the "GLASS" (Growth rate/Longest tumor diameter/Adverse biopsy histology/Stage/Symptomatology) framework to guide DI decisions.³ RMB was performed in 67%, with histology revealing 71% renal cell carcinoma, 23% benign, and 6% nondiagnostic, which confirms the commonly quoted RMB nondiagnostic rate of < 10%. They showed 100% sensitivity and positive predictive value for malignancies in those who went on to surgery, showing excellent RMB accuracy.

Both studies used GR thresholds (>5 mm/y) for DI, with Roswell Park refining this based on tumor size. Despite differences in RMB usage and accuracy, both groups confirm AS as a safe and effective option. These studies confirm that AS, while underutilized, is an effective treatment option that urologists should become facile with, as we have in prostate cancer, in order to reduce treatment morbidity without compromising oncologic safety.

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REFERENCES

1. Alkhatib KY, Cheaib JG, Pallauf M, et al. Active surveillance vs primary intervention for clinical T1a kidney tumors: 12-year experience of the Delayed Intervention and Surveillance for Small Renal Masses prospective comparative study. *J Urol.* 2025;214(2):197-209. doi:10.1097/JU.0000000000004583
2. Koelker M, Krimphove M, Alkhatib K, et al. Understanding hospital-level patterns of nonoperative management for low-risk thyroid and kidney cancer. *JAMA Netw Open.* 2022;5(11):2242210. doi:10.1001/jamanetworkopen.2022.42210
3. Menon AR, Hussein AA, Attwood KM, et al. Active surveillance for risk stratification of all small renal masses lacking predefined clinical criteria for intervention. *J Urol.* 2021;206(2):229-239. doi:10.1097/JU.0000000000001714