

Histological tumour grade – WHO/ISUP (Required)

Reason/Evidentiary Support

Grade should be assigned based on the single high power field showing the greatest degree of nuclear pleomorphism.

This grading system is the World Health Organization/ International Society of Urological Pathology (WHO/ISUP) grading system for renal cell carcinoma which is recommended in the 2016 WHO.^{1,15} This system has been validated as a prognostic parameter for clear cell and papillary renal cell carcinoma.^{15,19,20} It has not been validated for other types of renal cell carcinoma but may be used for descriptive purposes.²¹ The current recommendation is that chromophobe renal cell carcinoma is not graded.^{1,22}

References

1. World Health Organization (WHO) Classification of tumours. Pathology and genetics of the urinary system and male genital organs. Humphrey PA, Moch H, Reuter VE, Ulbright TM, editors. Lyon, France: IARC Press;2016
15. Delahunt B, Cheville JC, Martignoni G, et al. The International Society of Urological Pathology (ISUP) Grading System for Renal Cell Carcinoma and Other Prognostic Parameters. 2013; 37:1490-1504.
19. Sika-Paotonu D, Bethwaite PB, McCredie MRE, Jordan TW, Delahunt B . Nucleolar grade but not Fuhrman grade is applicable to papillary renal cell carcinoma. Am J Surg Pathol 2006; 30: 1091-1096.
20. Delahunt B, Sika-Paotonu D, Bethwaite PB, et al. Grading of clear cell renal cell carcinoma should be based on nucleolar prominence. Am J Surg Pathol 2011; 135: 1134-1139.
21. Delahunt B, Egevad L, Samaratunga H, et al. Gleason and Fuhrman no longer make the grade. Histopathology. 2016 Mar;68(4):475-81.
22. Delahunt B, Sika-Paotonu D, Bethwaite PB, et al. Fuhrman grading is not appropriate for chromophobe renal cell carcinoma. Am J Surg Pathol 2007; 31: 957-960.