

# Tumour grade for PI-RADS across different age groups

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## Introduction

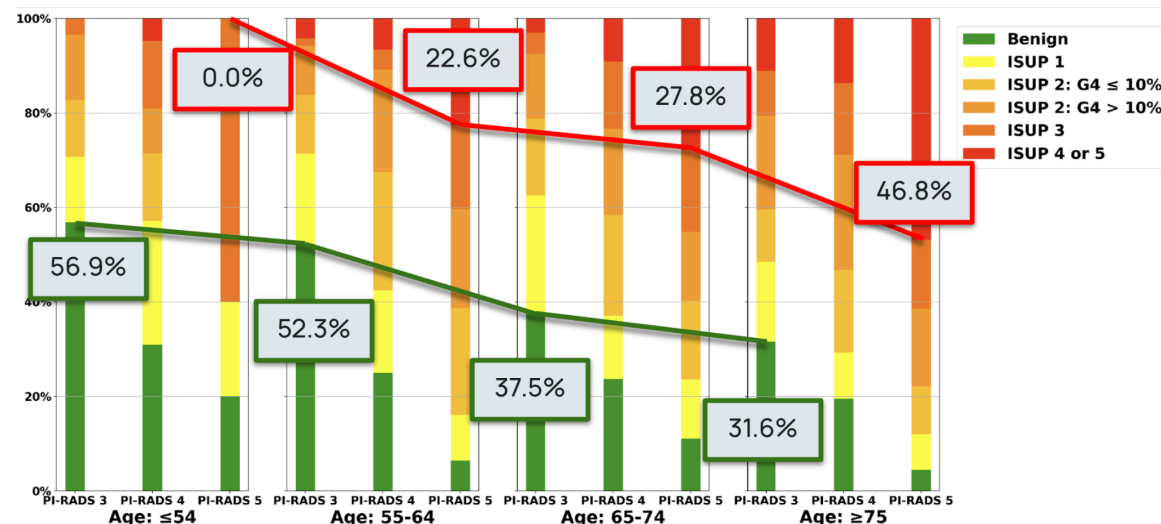
In clinical practice, and in line with the Swedish clinical guidelines for MRI in diagnostic pathways, PI-RADS 5 is considered to indicate a very high likelihood of clinically significant prostate cancer, PI-RADS 4 a high likelihood, and PI-RADS 3 is regarded as an indeterminate finding, for which clinically significant prostate cancer cannot be excluded.

## Method

Targeted biopsies were performed in 1,289 patients (1,767 lesions): in total, 105, 515, 648 and 499 lesions in the age groups ≤54, 55–64, 65–74 and ≥75 years, respectively. The presence of cancer and tumour grade were analysed across the different age intervals.

## Results

For PI-RADS 5, the proportion of high-grade cancer increases progressively with age: from no cases among patients under 55 years (only five PI-RADS 5 lesions in this group) to 46.8% in patients over 74 years. For PI-RADS 3 with benign findings, the pattern is reversed, with 56.9% benign findings in patients under 55 years and 31.6% in those over 74 years.



## Discussion

The study shows that the likelihood of detecting cancer and high-grade cancer (ISUP 4 or 5) increases with age, independent of PI-RADS. These findings should be taken into account when performing biopsies and when formulating biopsy guidelines, which currently do not consider the patient's age.

## Conclusion

The risk of cancer and high-grade cancer (ISUP 4 or 5) increases with age independent of PI-RADS.