

Diagnostic concordance in external review of prostate biopsies in the Stockholm Region 2024

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Introduction

In 2024, Inify Laboratories performed the majority of prostate biopsy diagnostics in the Stockholm Region. During multidisciplinary treatment conferences in the region, cases initially reported by Inify Laboratories were, when relevant, re-examined at hospital-based pathology departments. Previously published studies on the re-evaluation of prostate biopsies have shown diagnostic concordance rates of 46–85% between the original diagnosis and the external review with respect to tumour grading.

Method

A total of 773 prostate biopsy cases, originally diagnosed at Inify Laboratories, were externally reviewed at four hospitals (St Görän, Södersjukhuset, Danderyd, and Karolinska Solna). Review forms for these cases were collected and compiled. In instances where the diagnosis differed, a tertiary review of the available assessments was carried out by Claes Lindh (CL). Changes were categorised as grade 1 (a one-step change in ISUP grade), grade 2 (a two-step or greater change in ISUP grade), and grade 3 (cancer versus no cancer, or a change in tumour type).

Results

In the external reviews, a total of 26 changes were noted (3.5% of all externally reviewed cases), comprising 19 grade 1 changes and 7 grade 2 changes. During tertiary external review, CL agreed with 5 of the grade 1 changes and 5 of the grade 2 changes (1.3% of all cases). No grade 3 changes were identified in the external reviews.

Discussion

The results demonstrate an exceptionally low rate of changes at external review compared with previously published studies. Potential contributors to the high level of diagnostic concordance include the high histological quality, which facilitates reliable tumour grading; the use of standardised reporting, which enhances clarity in pathology reports; and the fact that diagnostic assessment is carried out exclusively by experienced pathologists with substantial expertise in urological pathology.

Conclusion

The low frequency of changes, together with the absence of major discrepancies, suggests that large-scale re-review of prostate biopsies in the context of MDT meetings is unnecessary when appropriate quality criteria are applied within pathology.