# **Histological tumour grade** (Core)

Despite low level of interobserver agreement,[1] histological grade is an independent prognostic factor used in risk assessment models for colorectal carcinoma.[2-4] Various grading systems have been used over the years. A two-tiered grading system is more reproducible and more prognostically relevant than a four-tiered grading system. For consistency with the latest World Health Organization (WHO) Classification,[5] grading should be based on the least differentiated component of the tumour, although there is no good evidence to support this stance and a minimum area of high grade tumour required for this classification has not been defined. Tumour buds or poorly differentiated clusters, most commonly seen at the invasive tumour front, should not be considered in the evaluation of grade. Emerging data suggests that grading based on poorly differentiated clusters is superior to conventional grading with respect to both prognostic value and reproducibility.[6,7]

Only adenocarcinoma not otherwise specified (NOS) and mucinous adenocarcinoma should be graded. Grading is not applicable to other subtypes of adenocarcinoma, as grading by gland formation is difficult to apply to subtypes and most of these are associated with their own clinical prognosis e.g., bad for signet-ring cell adenocarcinoma and good for adenoma-like adenocarcinoma. Mucinous adenocarcinoma should be graded on glandular formation and epithelial maturation.[5] Tumour mismatch repair status is likely to influence clinical behaviour of some histological tumour types, including mucinous adenocarcinoma, but some studies have found morphological grading superior to mismatch repair status for prognostication of mucinous adenocarcinomas.[8,9]

## References


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