Prostate Cancer Grading

Active Surveillance versus Treatment

Certain morphological features are associated with worse prognosis, and may contribute to management decision making. Inform Diagnostics reports all of these features:

- Percentage of Gleason pattern 4
- Intraductal carcinoma (IDC-P)
- Atypical intraductal/cribriform proliferation
- Predominantly ductal adenocarcinoma
- Large cribriform pattern 4
- Stromogenic features
- Extra-prostatic extension
- Lymphovascular invasion (LVI)

REFERENCES

1. Epstein JI et al. The 2014 International Society of Urological Pathology (ISUP) Consensus Conference on Gleason Grading of Prostatic Carcinoma: Definition of Grading Patterns and Proposal for a New Grading System. *Am J Surg Pathol.* 2016; 40(2):244–52.
2. Pierorazio PM et al. Prognostic Gleason grade grouping: data based on the modified Gleason scoring system. *BJU Int* 2013; 111:753–60.
3. Shah RB, Tian W, et al. Atypical intraductal proliferation and intraductal carcinoma of the prostate on core needle biopsy: a comparative clinicopathological and molecular study with a proposal to expand the morphological spectrum of intraductal carcinoma. *Histopathology*. 2017; 71 (5): 693–702.
4. NCCN Guidelines for Patients. Prostate cancer, 2019

At Inform Diagnostics, prostate tumor grading is highly detailed and follows the most current literature

Inform Diagnostics helps clinicians capture value and sustainability by providing their patients with the most trusted, high-quality, urologic anatomic pathology services. With unparalleled quality and experience, Inform Diagnostics provides pathologist-to-physician interaction with timely, definitive patient diagnoses. With state-of-the-art labs and support for all lab models, Inform Diagnostics is profoundly impacting patient care, one urologic diagnosis at a time, by practicing medicine at the intersection of quality, service and solutions.

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Get Actionable Detail from **Prostate Cancer Grading**

Inform Diagnostics provides highly detailed pathology reports to provide maximum clinical value. In addition to Han and Partin tables, all prostate biopsy reports with a positive result include Grade Groups and many clinically relevant histological details, such as intraductal carcinoma and percentage of Gleason pattern 4, to help with your clinical management.

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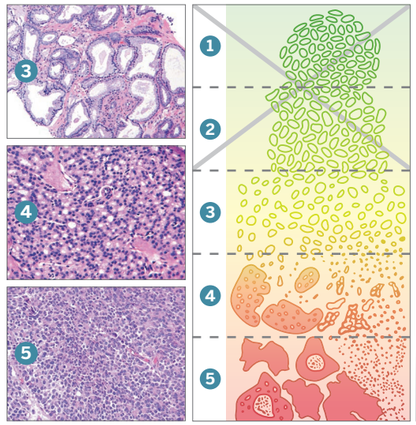
Prostate Cancer Grading

Gleason Pattern, Gleason Score, ISUP/WHO Grade Group, and NCCN Risk Group



Gleason Score Primary pattern + worst/secondary pattern	ISUP/WHO Grade Group	NCCN Risk Groups for Prostate Cancer (version 2.2019)
3+3=6	1	Very Low or Low (when PSA <10)
3+4=7	2	Intermediate, favorable
4+3=7	3	Intermediate, unfavorable
4+4=8 3+5=8 5+3=8	4	High or Very High
4+5=9 5+4=9 5+5=10	5	High or Very High

Gleason patterns 3–5 are defined by the morphological features of the tumor.

Gleason Score 6–10 is the sum of two Gleason patterns: a primary Gleason pattern (the majority of the tumor) + the worst pattern or secondary pattern.

Gleason patterns 1 and 2, and Gleason Scores 2–5, are currently no longer assigned in biopsies.

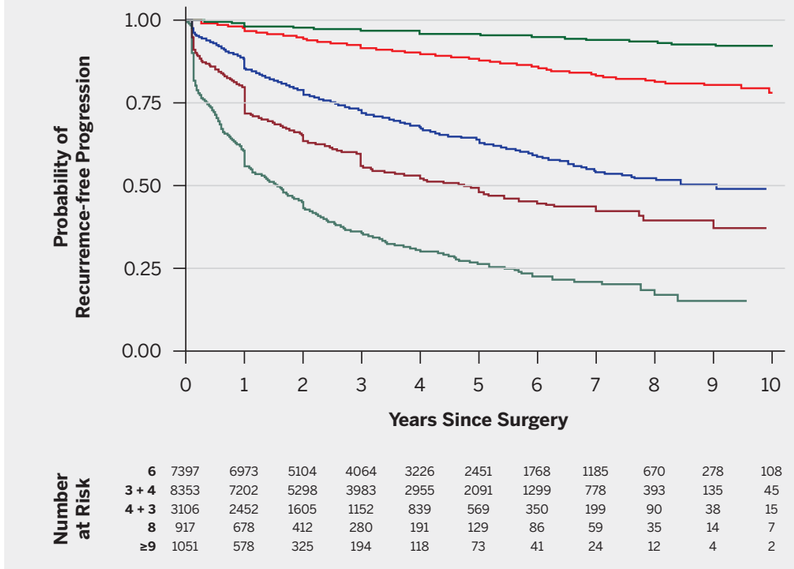
These grades or patterns reflect the prostate tumor cells' degree of differentiation and aggressiveness. The higher the grade, the more aggressive the tumor, and the worse the overall prognosis of the patient.

Gleason Scores can be grouped and range from Grade Group 1 (most favorable) to 5 (least favorable).[1,2]

How Inform Diagnostics Presents Grade Group Reporting

Inform Diagnostics reports the highest Grade Group and the composite overall Grade Group at the end of the diagnosis to better predict Grade Group in radical prostatectomy.

EXAMPLE	**Four cores with Gleason Score 4+3 = 7** **One core with Gleason Score 4+4 = 8**	=	**Grade Group 4** *based on the core with the highest Gleason Score* **Grade Group 3 overall**



The biochemical recurrence-free progression probabilities for radical prostatectomy Grade Groups 1–5 were 96%, 88%, 63%, 48%, and 26%.[1]

Accurate Gleason grades by well-trained urologic pathologists provide the most valuable prognostic information in prostate cancer cases in needle biopsies.

Prostate Intraductal Carcinoma and Atypical Intraductal Proliferation

Inform Diagnostics is a pioneer in researching and reporting presence of intraductal spread of prostate adenocarcinoma (IDC-P), which is typically associated with adjacent high-grade invasive prostate carcinoma in prostatectomy specimen. Prostate cancer demonstrating IDC-P is usually associated with aggressive outcomes compared to cancer without IDC-P. This finding is especially significant in cases that do not show invasive cancer or only show low-grade cancer on biopsy. Current NCCN guidelines also recommend testing for germline DNA repair mutations in patients with IDC-P on biopsy.[3]

Our recent study suggests atypical intraductal proliferation (AIP) represents lower-grade morphological spectrum of IDC-P, and is associated with an intermediate risk prostate cancer.[4]

Trust All of Your Prostate Cases to Inform Diagnostics!

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