Person with cancer—histopathological grade, Gleason score code N[N]

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Person with cancer—histopathological grade, Gleason score code N[N]

Identifying and definitional attributes

Metadata item type:	Data Element
Short name:	Gleason score
Synonymous names:	Gleason sum
METEOR identifier:	436191
Registration status:	Health, Standard 14/05/2015
Definition:	**Gleason score** represents the sum of the primary and secondary Gleason grades outlining the histopathological grade, differentiation or phenotype describing the resemblance of the tumour tissue to the normal tissue from which it arose, as represented by a code.
Context:	Only relevant for people with prostate cancer.
Data Element Concept:	Person with cancer—histopathological grade
Value Domain:	Gleason score code N[N]

Value domain attributes

Representational attributes

Representation class:	Code
Data type:	Number
Format:	N[N]
Maximum character length:	2

	Value	Meaning
Permissible values:	2	Grade 2
	3	Grade 3
	4	Grade 4
	5	Grade 5
	6	Grade 6
	7	Grade 7
	8	Grade 8
	9	Grade 9
	10	Grade 10

Collection and usage attributes

Guide for use:	The Gleason score (sum) is formed by adding the primary and secondary Gleason grades/patterns together as outlined in Table 1 for radical prostatectomy specimens and Table 2 for needle core biopsy specimens. If only one grade is found in the tissue sample, then that grade (the primary Gleason grade) is multiplied by two to give the score.
	Gleason grades range from 2 to 10 for radical prostatectomy specimens and 5-10 for needle core biopsy specimens (Grades 2-4 are not applicable to needle core biopsy specimens).

Table 1: Gleason scoring in radical prostatectomy specimens

Number of different grades present	Proportion of grades present	Comments
1 - Primary	One of 2, 3, 4 or 5 only	Double primary grade to get score (eg 4+4=8) Record for dominant nodule +/- nondominant (smaller) nodule if of higher grade (if present)
2 – Primary and secondary	Grades mixed	Report both grades, dominant pattern* first (2+3, 3+4, 4+3 ..) Record for dominant nodule +/- nondominant (smaller) nodule if of higher grade (if present)
	Secondary grade is lower and of limited amount (<5%)	Ignore lower grade – 4+3 becomes 4+4 Record for dominant nodule +/- non dominant (smaller) nodule if of higher grade (if present)
	Secondary grade is higher and of limited amount (<5%)	Include higher grade – 3+3 becomes 3+4 Record for dominant nodule +/- non dominant (smaller) nodule if of higher grade (if present)
3 – Primary, secondary and tertiary	Grades 2, 3, 4 or 5	Report dominant grade (largest area) first, then secondary grade (second largest area), then tertiary grade (only if 4 or 5) eg 3+4=7 with tertiary grade 5* eg 2+3=5 with tertiary grade 4* Record for dominant nodule +/- non dominant (smaller) nodule if of higher grade (if present)

Table 2: Gleason scoring in needle core biopsy specimens

Number of different grades present	Proportion of grades present	Comments
1 - Primary	One of 3, 4 or 5 only	Double grade to get score (eg 4+4=8)
2 – Primary and secondary	Grades mixed	Report both grades, dominant pattern first (3+4, 4+3 ..)
	Secondary grade is lower and of limited amount (<5%)	Ignore lower grade – 4+3 becomes 4+4
	Secondary grade is higher and of limited amount (<5%)	Include higher grade – 3+3 becomes 3+4
3 – Primary, secondary and tertiary	Grades 3, 4 or 5	Score the primary grade and the highest grade: eg 3+4+5 becomes 3+5=8 eg 4+5+3=5 becomes 4+5=9

* The tertiary grade is recorded separately under the item Person with cancer—

histopathological grade, tertiary Gleason grade, code N

Note: Dominant (primary) grade is that which occupies the greatest area.

More extensive guidelines are available in the *Prostate cancer (radical prostatectomy) structured reporting protocol (2nd Ed.)* at the Royal College of Pathologists of Australasia website.

Source and reference attributes

Submitting organisation:	Cancer Australia
Reference documents:	American College of Surgeons 2011. Facility Oncology Registry Data Standards: Revised for 2011. American College of Surgeons: Chicago.
	Humphrey PA 2004. Gleason grading and prognostic factors in carcinoma of the prostate. Modern pathology, 17(3):p292-306.
	Royal College of Pathologists of Australasia 2014. Prostate cancer (radical prostatectomy) structured reporting protocol (2nd Ed.). Royal College of Pathologists of Australasia: Sydney.

Data element attributes

Collection and usage attributes

Guide for use:	Record the **Gleason score** through the use of the primary and secondary Gleason grades as assigned by a pathologist.
	Gleason score is a histopathological grade for prostate cancer, outlining the differentiation between tumour tissue and normal prostate tissue. A low Gleason score indicates that the cancer tissue is similar to normal prostate tissue and the tumour is less likely to spread; a high Gleason score indicates that the cancer tissue is very different from normal prostate tissue and the tumour is more likely to spread.
	More extensive guidelines are available in the Prostate cancer (radical prostatectomy) structured reporting protocol (2nd Ed.) at the Royal College of Pathologists of Australasia website.
Collection methods:	To be sought from pathology reports or patient medical records.
Comments:	Gleason score (or sum) is a prognostic indicator of prostate cancer which may be used to guide treatment and assess whether appropriate treatment protocols have been used.

Source and reference attributes

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	Royal College of Pathologists of Australasia 2014. Prostate cancer (radical prostatectomy) structured reporting protocol (2nd Ed.). Royal College of Pathologists of Australasia: Sydney.

Relational attributes

Related metadata references: Is formed using [Person with cancer—histopathological grade, primary Gleason grade code N](#)
    [Health](#), Standard 14/05/2015

Is formed using [Person with cancer—histopathological grade, secondary Gleason grade code N](#)
    [Health](#), Standard 14/05/2015

Implementation in Data Set Specifications: [Prostate cancer (clinical) NBPDS](#)
    [Health](#), Standard 14/05/2015