PREDICTION OF PATHOLOGICAL STAGE BASED ON CLINICAL STAGE, SERUM PROSTATE-SPECIFIC ANTIGEN, AND BIOPSY GLEASON SCORE: PARTIN TABLES IN THE CONTEMPORARY ERA

Primary source article: http://onlinelibrary.wiley.com/doi/10.1111/bju.13573/full
OBJECTIVE

To update the Partin Tables for prediction of pathological stage in the contemporary setting and examine trends in patients treated with radical prostatectomy (RP) over the past three decades.

The Partin Tables remain a straightforward and accurate approach for projecting pathological outcomes based on readily available clinical data.

The ability to accurately predict outcomes after RP using preoperative data remains critical in the counseling and decision-making process of men with prostate cancer.

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underwent RP and pelvic lymphadenectomy for histologically confirmed prostate cancer at the Johns Hopkins Hospital.

January 2010-October 2015, **4459 men**

Median (range) age at surgery was: **60** (34-77 years)

Median (range) serum-prostate specific antigen (PSA) level was: **4.9** (0.1–125.0) ng/mL

Preoperative clinical stage, PSA level, and biopsy Gleason score (i.e. prognostic Grade Group - GG) were used in a polychotomous logistic regression model to predict the probability of pathological outcomes categorised as:

- Organ-confined (OC)
- Extraprostatic extension (EPE)
- Seminal vesicle involvement (SV+)
- Lymph node involvement (LN+)

Observed probabilities outcomes were:

- **OC disease in 74%**
- **EPE in 20%**
- **SV+ in 4%**
- **LN+ in 2%**

**RESULTS**

- Probability of LN+ was **SUBSTANTIALLY HIGHER** for biopsy Gleason score 9-10 (GG5) compared to lower Gleason scores.
- Probability of EPE **INCREASED SUBSTANTIALLY** when biopsy Gleason score increased from 6 (GG1) to 3 + 4 (GG2), with smaller increases for higher grades.
- Probability of EPE **INCREASED SUBSTANTIALLY** when biopsy Gleason score increased from 6 (GG1) to 3 + 4 (GG2), with smaller increases for higher grades.

**Proportion of men treated with biopsy Gleason score \( \leq 6 \) cancer (GG1) was:**
- **47%**

**Proportion of men with OC cancer has REMAINED SIMILAR** since 2000, equalling 73-74% overall.

**Previous Partin Table results that GS 4+3 and 8 conveyed similar risk for pathologic outcomes were confirmed.**

**Proportion of LN+ was SUBSTANTIALLY HIGHER** for biopsy Gleason score 9-10 (GG5) compared to lower Gleason scores.

**Probability of EPE INCREASED SUBSTANTIALLY** when biopsy Gleason score increased from 6 (GG1) to 3 + 4 (GG2), with smaller increases for higher grades.

**Representing a substantial decrease from the**
- **63%** in the previous cohort and
- **77%** in 2000-2005.

**Primary source article:**
The proportion of men with OC disease has remained stable since 2000, despite a substantial decline in the proportion of men with biopsy Gleason score 6 (GG1).

This is consistent with the notion that many men with Gleason score 6 (GG1) disease were over treated in previous eras.

The Partin Tables are available for clinical use via: http://urology.jhu.edu/prostate/