

Supplementary Table 1 – Inclusion criteria, follow-up schedule, and indications for discontinuation of Active Surveillance protocols at Istituto Nazionale Tumori, Milan

| Inclusion criteria | |
|--|---|
| PSA | < 10 ng/ml |
| Clinical stage | ≤ T2c |
| Gleason Pattern Score (GPS)/ Prognostic Grade Group (PGG) | GPS=3+3/PGG1 OR GPS=3+4/PGG2 in age > 70 years, tumor involving < 10% core length |
| Number of positive cores | ≤ 2 OR ≤ 15% of all cores in case of saturation biopsy (> 20 cores) with a maximum of 4 OR ≤ 25% positive cores AND maximum tumor length in positive cores ≤ 50% |
| PSA density | < 0.2 ng/ml/cm ³ OR no limit on PSA density |
| Follow-up schedule | |
| PSA measurement | Every 3 months |
| Digital rectal examination (DRE) | Every 6 months |
| Re-biopsy | 1, (2), 4 and 7 years after diagnostic biopsy |
| Indications for AS discontinuation | |
| | Any one of the following: <ul style="list-style-type: none"> ▪ PSA doubling time < 3 years; ▪ Clinical stage > T2c at DRE; ▪ 2 positive cores OR > 25% positive cores OR maximum tumor length in positive cores > 50% (upsizing) at rebiopsy; ▪ GPS > 6/≥PGG2 (upgrading) at re-biopsy |

Supplementary Table 2 – Pair-wise relationships of the available clinico-pathological variables.

| Variables | Age (yrs) | PSA density (ng/ml/cm³) | Prostate volume (cm³) | Positive cores (n) | Positive cores (%) | Max PCa length (%) |
|---|------------------|---|---|---------------------------|---------------------------|---------------------------|
| Age (yrs) | | -0.14(-0.25; -0.04)* | <i>0.0010 †</i> | 0.4565 † | 0.1888 † | 0.14 (0.03; 0.24)* |
| PSA density (ng/ml/cm³) | | | <i><.0001 †</i> | 0.8729 † | 0.1282 † | -0.01(-0.11; 0.10)* |
| Prostate volume (cm³) | | | | 0.4233 ** | 0.8023 ** | 0.2567 † |
| Positive cores (n) | | | | | <i><.0001 **</i> | <i><.0001 †</i> |
| Positive cores (%) | | | | | | <i><.0001 †</i> |
| Max PCa length (%) | | | | | | |

Age: age at biopsy; PSA density: PSA/Volume (on logarithmic scale); Volume: Prostatic volume [dichotomized as <50cc vs ≥50cc]; Positive cores (n): number of positive cores at diagnostic biopsy [dichotomized as ≤1 vs >1]; Positive cores (%): % positive cores at diagnostic biopsy [dichotomized as <10% vs ≥10%], Max PCa length (%): maximum length of prostate cancer in positive core.

*Spearman correlation coefficient and 95%CI_{BCa}; ** χ^2 p-value; † non parametric Kruskal-Wallis p-value; significant association or relevant correlations are highlighted in italics.