

Supplementary Data

Cutoff values for kinetic PSA values

The area under the receiver operating characteristic (ROC) curve was 0.659 (95% CI 0.6-0.7; $p < 0.0001$) for the PSA value at the time of PET/CT, 0.622 (95% CI 0.6-0.7; $p = 0.049$) for PSA_{dt}, and 0.693 (95% CI 0.6-0.7; $p < 0.0001$) for PSA_{vel}.

The optimal cutoff values to differentiate a positive or negative PET-PSMA result were 0.5 ng/mL for the PSA value at the time of PET/CT, 4 months for PSA_{dt}, and 0.4 ng/mL/year for PSA_{vel}.

The 68Ga-PSMA-11 PET/CT was positive in 36.2% of patients who had a PSA value < 0.5 ng/mL at the time of PET/CT compared to 60.8% in patients who had a PSA value ≥ 0.5 ng/mL at the time of PET/CT ($p < 0.001$).

The 68Ga-PSMA-11 PET/CT was positive in 49.8% of patients who had a PSA_{dt} > 4 months, compared to 66.4% in patients with a PSA_{dt} ≤ 4 months ($p = 0.002$).

The 68Ga-PSMA-11 PET/CT was positive in 37.6% of patients with a PSA_{vel} < 0.4 ng/mL/year, compared to 61% in patients with a PSA_{vel} ≥ 0.19 ng/mL/year ($p < 0.001$).