

Table S1 Sequence parameters for diagnostic MRI

| Parameters | T1WI | T2WI | DWI | SyMRI |
|-------------------------------|----------------|--------------------------|------------------|------------------------|
| Sequence | Fast spin echo | PROPELLER | Echo-planar | QRAPMASTER |
| Imaging plane | Axial | Axial, coronal, sagittal | Axial | Axial |
| Repetition time (msec) | 661 | 2,300/2,300/2,300 | 5,837/5,975 | 4,000 |
| Echo time (msec) | 8 | 90/90/90 | 64.9/73.8 | TE1 (15.6); TE2 (93.4) |
| Flip angle (degrees) | 111 | 110/110/110 | 90 | 90 |
| Slice thickness (mm) | 3 | 3/3/3 | 3/3 | 4 |
| Field of view (mm) | 240×240 | 240×240/260×260/240×240 | 260×130 | 220×286 |
| Matrix (frequency × phase) | 352×288 | 352×352/352×352/352×352 | (128×80)/128×64 | 320×256 |
| Number of excitation | 2 | 3/2.25/2 | (2/16)/16 | 1 |
| Echo train length | 3 | 28/28/27 | NA | 16 |
| Bandwidth (kHz) | 83.33 | 62.50/83.33/62.50 | 250/250 | 41.67 |
| b values (s/mm ²) | NA | NA | (50/1,000)/1,500 | NA |
| Acceleration factor | 2 | 2/2/2 | NA | 2 |
| Acquisition time (min:s) | 01:43 | 02:33/02:19/02:07 | 05:21/4:53 | 06:08 |

MRI, magnetic resonance imaging; T1WI, T1-weighted imaging; T2WI, T2-weighted imaging; DWI, diffusion weighted imaging; SyMRI, synthetic magnetic resonance imaging; PROPELLER, Periodically Rotated Overlapping Parallel Lines with Enhanced Reconstruction; QRAPMASTER, quantification of relaxation times and proton density by multiecho acquisition of a saturation-recovery using turbo spin-echo readout; NA, not applicable.

Table S2 Results of two-reader reliability analysis

| Cohort | ICC | | | |
|------------|-------|-------|-------|-------|
| | T1 | T2 | PD | ADC |
| Training | 0.967 | 0.969 | 0.942 | 0.977 |
| Validation | 0.971 | 0.983 | 0.977 | 0.902 |

Reliability was considered poor (ICC, 0.5), moderate (ICC, 0.5–0.75), good (ICC, 0.75–0.90), or excellent (ICC, 0.90). ICC, intraclass correlation coefficient; T1, longitudinal relaxation time; T2, transverse relaxation time; PD, proton density; ADC, apparent diffusion coefficient.

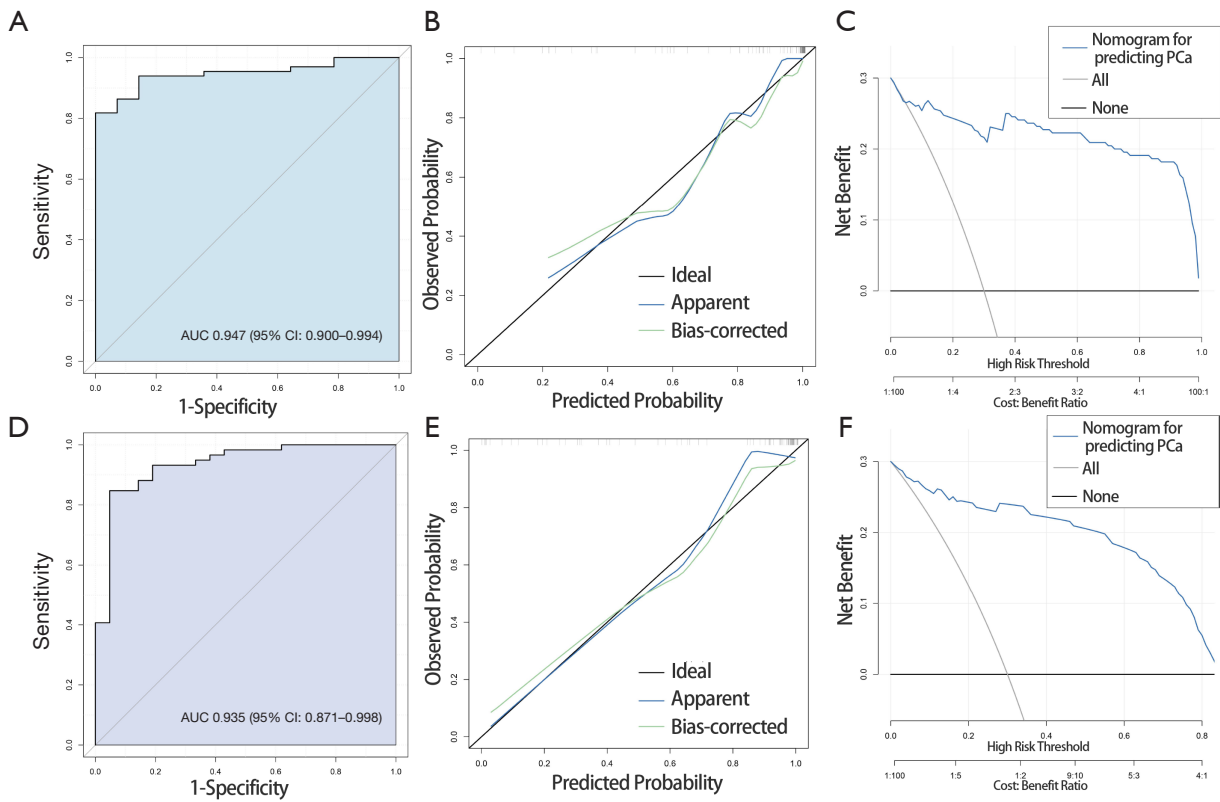


Figure S1 Performance evaluation of the nomograms for detecting PCa and csPCa in the external validation cohort. (A) ROC curve of nomogram for detecting PCa in the external validation cohort; (B) calibration curve of nomogram for detecting PCa; (C) decision curve of nomogram for detecting PCa; (D) ROC curve of the nomogram for detecting csPCa; (E) calibration curve of the nomogram for detecting csPCa; (F) decision curve of the nomogram for detecting csPCa. AUC, area under the curve; CI, confidence interval; PCa, prostate cancer; csPCa, clinically significant prostate cancer; ROC, receiver operating characteristic.