

## IN INITIAL STAGING

A correct assessment of the tumor extension is crucial to establish the therapeutic strategy

### T-STAGING (at any risk group)

- Transrectal Ultrasound: is not more accurate than digital rectal examination<sup>1</sup>.
- **Magnetic Resonance Imaging (MRI)**: Most useful method for local staging<sup>1</sup>.
  - Detect extraprostatic extension: Sensitivity 57%; Specificity 91%
  - Detect seminal vesicle invasion: Sensitivity 58%; Specificity 96%
  - T3 assessment: Sensitivity 61%; Specificity 88%

### N-STAGING (intermediate-ISUP 3 and high-risk patients)

- **Abdominopelvic CT and MRI**: Sensitivity < 40% with PSA < 20ng/mL.<sup>1</sup>
- Choline PET/CT: Sensitivity 19-71% (higher in very high-risk patients); Specificity 92%<sup>1</sup>.
- **Prostate-specific membrane antigen-based PET/CT (PSMA PET/CT)**: Sensitivity 40-77%, Specificity 90-98%. Higher if PSA>10ng/mL. **The most appropriate**, but small lymph node (LN) metastases may still be missed<sup>1</sup>.

### M-STAGING (intermediate-ISUP 3 and high-risk patients)

	Sensitivity	Specificity
Conventional staging (abdominopelvic CT and <sup>99m</sup> Tc-bone scan)	38-54%	91-93%
Choline PET/CT	47-62%	90-92%
Whole body MRI	43-80%	80-96%
<b>PSMA PET/CT</b>	85-96%	96-99%



Compared to conventional staging, **PSMA PET/TC is 27% more accurate for high-risk disease<sup>2</sup>** (LE 1b)<sup>1</sup>:

- 25% and 6% of additional LN and bone/visceral metastases were detected<sup>3</sup>.
- Management changes in 21-28% of patients<sup>2,3</sup>.
- Radiation exposure is higher for conventional imaging than for PSMA PET/CT (19.2 vs 8.4mSv)<sup>2</sup>.
- No prospective studies demonstrating survival benefit.
- No outcome data to inform subsequent management.

## IN BIOCHEMICAL RECURRENCE

Conventional imaging (bone scan + abdominopelvic CT) has low sensitivity if PSA level <10

### AFTER RADICAL PROSTATECTOMY

- **PSMA PET/CT**  
If PSA level >0.2ng/mL<sup>1</sup>
- **Choline or fluciclovine PET/CT**  
If PSMA PET/CT is not available and PSA level >1ng/mL<sup>1</sup>

### AFTER RADIOTHERAPY

- **MRI**  
To localize and guide biopsies for local salvage therapy<sup>1</sup>
- **PSMA PET/CT (if available) or fluciclovine/choline PET/CT**  
In patients fit for salvage treatment<sup>1</sup>

## IN NON-METASTATIC CASTRATION-RESISTANT PC (nm-CRPC)

- **PSMA PET/CT**  
Detect M1 disease in 55% of patients despite negative conventional imaging<sup>4</sup>.  
Detect pelvic disease in 44% of patients despite negative conventional imaging<sup>4</sup>.  
No studies about impact on overall survival or quality of life.