

Imaging of the Prostate Gland

1. TAUS (TRANS-ABDOMINAL ULTRASOUND)

- Limited utility for the diagnosis of prostate Ca or other prostate pathology outside of BPH (prostatitis, prostate abscess)
- Provides gross estimate of prostate volume
- Context for findings pertaining to urinary bladder and collecting system (trabeculation of bladder wall which would suggest chronic outlet obstruction, increased PVR, dilatation of collecting system)

2. TRUS (TRANS-RECTAL ULTRASOUND)

- More accurate evaluation of prostate volume
- Better delineation of prostate anatomy (Peripheral Zone vs Transition Zone)
- Generally better for other pathologies (prostatitis, prostate abscess)
- Limited utility for the diagnosis of prostate Ca (can't reliably differentiate between malignant and benign entities)

3. CT SCAN

- More accurate for evaluation of prostate volume
- Limited utility for the diagnosis of prostate Ca, unless grossly advanced and locally invasive
- In the context of prostate Ca
 - Assessment for metastatic lymphadenopathy
 - Assessment for bone metastases
 - Assessment for other sites of metastatic disease
- Can be of use to evaluate for other pathologies (prostatitis, prostate abscess)

4. 3T MRI

- Detection, localization, local staging of prostate cancer
 - Screening for clinically significant cancer in biopsy naïve patients
 - Patients with high/rising PSA with negative systematic Bx
 - Biopsy proven cancer requiring local staging
 - Active surveillance
 - Response to Tx

- Biochemical recurrence after Bx
- Detection of other prostate conditions (prostatitis, prostate abscess)

5. BONE SCINTIGRAPHY

- Assessment for bone metastases
- Differentiation between bone metastases and other causes of bone remodeling
 - Insufficiency fractures
 - Rib fractures

6. PSMA PET

- Initial diagnosis when systematic biopsy and MRI negative, with ongoing clinical suspicion
- Primary staging
- Rising PSA after primary treatment
- Clarification of findings on conventional imaging