LUTS/Prostatism

Clinical history, Urinalysis, Digital rectal examination (DRE), Prostate specific antigen (PSA)

DRE positive / suspicious and / or elevated PSA
- Transrectal US and guided biopsy
  - Benign prostatic hypertrophy/Prostate cancer
  - Negative but rising or persistent high PSA
    - Multiparametric MRI

DRE negative PSA normal
- Medical treatment for LUTS/ Urology follow up
- US/CTU for prostatic volume, other causes or upper tract abnormality
REMARKS

1 Pelvic US / Transrectal US
   1.1 Both transabdominal US and transrectal US (TRUS) are equally accurate for measuring prostate volume. Identifying the size of the prostate is important since it helps determine the type of therapy indicated.
   1.2 The US pattern is still too nonspecific to differentiate benign from malignant prostate lesions. TRUS-guided biopsy greatly improves accuracy.
   1.3 Generally TRUS is more accurate than CT in detecting capsular transgression but the accuracy does not appear high enough to support decision regarding the operability of individual lesion.
   1.4 TRUS allows volume correlation with PSA level.

2 Nuclear medicine
   2.1 Bone scan is important in staging of prostate cancer and sensitive for bone metastasis detection.

3 CT
   3.1 CT is used in staging pelvic extent of prostate cancer.
   3.2 CT has not proven to be of much value in evaluating the benign, enlarged prostate.

4 MRI
   4.1 The primary indication for MRI of the prostate is in the evaluation of prostate cancer after an ultrasound guided prostate biopsy has confirmed cancer in order to determine if there is extracapsular extension.
   4.2 MRI is also useful in evaluating prostate size, although other less costly procedures, such as US, are preferred.
   4.3 Increasingly MRI is also being used to detect prostate cancer particularly when the PSA is persistently elevated, but routine TRUS biopsy is negative; and to localize and stage a newly diagnosed prostate cancer for optimal treatment.

REFERENCES