

PB2 Undertake trans-rectal ultrasound guided biopsy of the prostate

OVERVIEW

This standard covers the identification of the prostate and surrounding structures and any abnormalities of these using ultrasound. It also covers the use of an ultrasound guided biopsy gun to take multiple tissue samples of the prostate, under local anaesthetic, which are adequate for diagnostic purposes. This standard covers trans-rectal ultrasound guided biopsy of the prostate using local anaesthesia undertaken in both primary and secondary care settings. Users of this standard will need to ensure that practice reflects up to date information and policies. Version No 1

KNOWLEDGE AND UNDERSTANDING

You will need to know and understand:

1. National and local policies and guidelines for undertaking trans-rectal ultrasound guided biopsy of the prostate
2. National and local infection control and COSHH policies and guidelines and their application to trans-rectal biopsy of the prostate
3. National and local policies and guidelines for patient identification
4. National and local policies and guidelines for informed consent
5. National and local policies and guidelines for patient records, their storage and confidentiality of information
6. The range of information which should be made available to the patient
7. The national and local policies and guidelines for risk management and adverse incidents
8. The normal and abnormal anatomy of the prostate and surrounding structures
9. Abnormal anatomy of the prostate visible using ultrasound and the significance of such abnormalities
10. The common pathologies of the prostate
11. The clinical indications for the procedure
12. The clinical conditions which require special precautions to be applied
13. The complications of the procedure and remedial strategies
14. The local anaesthetics for use in the procedure, their complications, indications of acute allergic reactions and the responses required
15. The relevant pharmacological agents and their interactions and complications
16. The clinical indications of the acute emergencies associated with the procedure and of the initial response required

- 17.The importance of keeping up-to-date with relevant clinical developments and guidelines
- 18.The functions of the equipment used in trans-rectal ultrasound guided biopsy of the prostate
- 19.The functions of the equipment used for infiltration of local anaesthetic for ultrasound guided biopsy of the prostate
- 20.The impact of equipment controls and manipulation of the trans-rectal probe on the visual image and identification of possible equipment faults
- 21.The processes involved in the production of an ultrasound image
- 22.The preparation of the environment, equipment and medications for the procedure
- 23.The roles and responsibilities of other team members
- 24.The limits of one's own knowledge and experience and the importance of not operating beyond these
- 25.The importance of clear and direct communications
- 26.The audit process and the application of this to one's own practice

PERFORMANCE CRITERIA

You must be able to do the following:

- 1.check the environment, equipment and medication to ensure that everything is properly prepared for the procedure, including access to relevant personnel and emergency equipment
- 2.ensure that sufficient competent staff are present to enable the procedure to be undertaken safely
- 3.read the patient's notes, referral letter and relevant investigation results and identify any special instructions, investigations or items for which you need to seek advice
- 4.determine the appropriateness of the request for the biopsy and decide on whether or not to proceed
- 5.greet and accurately identify the patient and introduce yourself and any colleagues present
- 6.assess the patient's fitness for the procedure and use of local anaesthesia including previous allergies to local anaesthetics. Identify any at risk patients for whom special precautions may be required and take appropriate action
- 7.explain the procedure including the use of local anaesthesia, potential complications, potential outcomes and discomfort to the patient and answer any questions at a level and pace that is appropriate to:
 - 1.their level of understanding;
 - 2.their culture and background;
 - 3.their preferred way of communicating;
 - 4.their needs
- 8.ensure that informed consent has been obtained or obtain it.
- 9.ensure that pre-procedure criteria have been met:
 - 1.urine sample tested for presence of urinary tract infection, the results interpreted and the sample sent for further analysis, if required;
 - 2.pre-procedure medication has been taken as instructed
- 10.apply local procedure-specific infection control and COSHH guidelines

11. position the patient correctly for the procedure and ensure their comfort within the constraints of the procedure
12. take appropriate action to ensure the patient's privacy and dignity throughout and following the procedure
13. maintain communications with the patient and respond to any questions or needs throughout the procedure
14. undertake a digital examination of the prostate to identify the size and shape of the prostate and any abnormalities which may influence the procedure and decide whether or not to proceed
15. apply lubricating gel to the trans-rectal probe and insert the probe gently into the patient's rectum, whilst monitoring progress on the ultrasound image
16. scan and identify the prostate gland and surrounding structures, locating the apex and base of the prostate on the ultrasound image. Take volume measurements
17. check the local anaesthetic to be used with regard to:
 1. name and dose of medication;
 2. condition and appearance of medication;
 3. expiry date of the medication
18. prepare a syringe with the local anaesthetic agent to be used and attach an appropriate needle
19. inform the patient that the local anaesthetic is about to be administered
20. introduce the local anaesthetic needle through the biopsy channel of the ultrasound probe until the needle tip can be visualised on the screen in the peri-prostatic tissue
21. commence the infiltration of the local anaesthetic observing the passage of the fluid throughout the peri-prostatic area
22. withdraw the needle and continue with the trans-rectal ultrasound guided biopsy of the prostate
23. identify the appropriate locations for the biopsy samples
24. introduce the biopsy needle until the needle tip can be visualised on the screen in the peri-prostatic tissue, adjacent to the target area
25. inform the patient that the biopsy is about to be taken, warn them of the sound of the biopsy gun and commence taking tissue samples
26. assess the patient's tolerance throughout the procedure and ensure they are happy to proceed
27. ensure that each biopsy sample is placed in the correct and accurately labelled sample container
28. ensure that the samples taken are adequate for histopathology by comparing the length of the core with the length of the needle notch
29. take additional samples
30. remove the trans-rectal probe from the patient
31. assess the patient for any complications and take appropriate remedial action as appropriate
32. assess the patient's needs following the procedure and offer support, if appropriate
33. ensure the patient has all required information and medication and advise them with regard to lifestyle and the potential complications of the procedure and their management and respond to any questions or requests for further information
34. assess the patient's fitness for discharge and advise them of when they should leave the unit
35. ensure that single use items and sharps are disposed of and that non-disposable equipment is cleaned and/or sterilised
36. complete the histopathology request form ensuring it matches patient identity and includes all relevant clinical details, particularly relevant previous treatment, procedures and biopsies

- 37.record the details of the procedure in the patient's record, including details of the local anaesthetic and any medication given. Ensure that timely and appropriate information is provided to the primary care team and other relevant personnel
- 38.recognise the need for immediate management of acute emergencies associated with the procedure and respond appropriately
- 39.recognise when you need help and/or advice and seek this from appropriate sources
- 40.collect and maintain a record of procedures for audit to include reviews of histology reports
- 41.ensure that you keep up to date with relevant clinical developments and changes to guidelines

ADDITIONAL INFORMATION

This National Occupational Standard was developed by Skills for Health. This standard links with the following dimension within the NHS Knowledge and Skills Framework (October 2004): Dimension: HWB6 Assessment and treatment planning