Block identification key (Recommended)

Reason/Evidentiary Support

The origin/designation of all tissue blocks should be recorded and it is preferable to document this information in the final pathology report. This is particularly important should the need for internal or external review arise. The reviewer needs to be clear about the origin of each block in order to provide an informed specialist opinion. If this information is not included in the final pathology report, it should be available on the laboratory computer system and relayed to the reviewing pathologist. Recording the origin/designation of tissue blocks also facilitates retrieval of blocks, for example for further immunohistochemical or molecular analysis, research studies or clinical trials.

Tumour sampling should be generous to ensure documentation of all tumour types present. Germ cell tumours should, as a minimum be sampled at 1 block per cm of tumour. However while this may be adequate for a non seminomatous germ cell tumour, to represent different elements, it has been recommended that seminomas are more generously sampled than this, as small foci of non seminoma will change patient management; if the tumour is small (less than 2 cm) it can be completely sampled.¹ Pure seminomas should be sampled especially thoroughly to exclude small areas on non- seminomatous germ cell tumour. It is important that blocks include the adjacent testicular parenchyma to allow for the assessment of lymphovascular invasion and germ cell neoplasia in situ (GCNIS).

Different areas of the tumour must be sampled, particularly including haemorrhagic and necrotic areas and solid/fleshy areas. All of the haemorrhagic tumour must be blocked, as choriocarcinoma is often haemorrhagic with little residual viable tumour.

Sections of tumour should include at least one section showing the relation of the tumour to the testicular hilum. If the tumour is well away from the hilum, there should be a separate section of the hilum clearly showing this region is free of tumour.

Sections of tumour should include the adjacent tunica albuginea and vaginalis and adjacent testicular parenchyma. Sections of uninvolved testicular parenchyma should be included. A block from the cord resection margin should be taken. This block should be taken prior to incision of the tumour to avoid contamination.²

Orchidectomy specimens for clinically localised disease

Blocks are selected to represent:

- the cord resection margin and base of cord (further cord blocks depending on macroscopy)
- the relationship of the tumour(s) to the rete testis, epididymis and cord
- the minimum distance of the tumour to the nearest inked resection margin for partial orchidectomies
- all areas of the tumour(s) with different macroscopic appearances (solid, cystic, pale or haemorrhagic)

- adjacent testis including the tunica albuginea (and vaginalis), a common site for vascular invasion
- uninvolved testis.

It is recommended that a record is kept of a good representative paraffin block of tumour and whether frozen tissue has been stored.

References

- 1 RCPath (Royal College of Pathologists) (2014). Dataset for the histological reporting of testicular neoplasms. Available from: https://www.rcpath.org/resourceLibrary/dataset-for-the-histological-reporting-of-testicular-neoplasms.html (Accessed 1st March 2017).
- 2 Nazeer T, Ro JY, Kee KH and Ayala AG (1996). Spermatic cord contamination in testicular cancer. *Mod Pathol* 9(7):762-766.