

CNS-L-01 — PROCUREMENT OF CATECHOLAMINE-PRODUCING TUMOURS

Background

Appropriate procurement of pheochromocytoma and paraganglioma tumour specimens requires presence of trained and dedicated personnel available to pick up, transport and process tumour material whenever such material should become available. This requires close communication and coordination between a member of the surgical team, a laboratory staff member and the pathologist on duty. The specimen should be collected onto ice and processed quickly (ideally within an hour of resection) to prevent degradation of the products being researched.

Process

1. An approximate pickup time window should be prearranged between a member of the surgical team and a designated member of the laboratory. Contact phone numbers should be shared so that the laboratory staff member can be called as soon as the specimen is resected and available.
 2. Materials for tumour procurement (ice bucket with ice; dry ice; sample tubes; specimen labels, tumour procurement form; aluminium foil, cryomolds, surgical gloves, sterile surgical scissors, forceps & plastic specimen containers) should be available.
 3. The tumour specimen is picked up from the surgical suite and placed on ice. The tumour specimen should also be accompanied by the required transmittal form. The precise time of resection and other relevant information (surgical location of tumor, name of surgeon etc) is noted on the tumour procurement form. If there are multiple tumors, this should be noted and a 'multiple tumour subcode should be entered into the procurement form, along with identifying information (e.g., location) about each specimen.
 4. The specimen and all required materials is transported to the pathology sectioning room. The onsite pathologist is located for immediate examination of the specimen.
 5. The specimen may be inked at the discretion of the pathologist. The x-y-z dimensions of the nodule or nodules are noted, taking care to ensure that these dimensions do not include adhering tissue etc. The specimen(s) may be weighed if this is practical (note this is not practical for specimens with large amounts of adhering tissue).
 6. If possible, tumours should be handled under sterile conditions in order to allow procurement of a larger tissue specimen (>200 mg) for culturing (such specimens are placed on ice). If this is not possible (e.g., due to inking for margins) some attempt can be made at obtaining a reasonable sterile sample of tissue from the cut center of the tumour.
 7. The tumour is dissected longitudinally and characteristics in appearance (presence of necrosis, haemorrhagic features, etc) noted in the procurement form.
 8. Small samples of the tumour specimens (20 to 100 mg) are dissected away and placed on sheets of aluminium foil on the dry-ice. Do not wrap the tumour in aluminum foil, but let it sit on the foil until it is frozen solid. Once frozen these individual specimens are placed in sample tubes labeled with patient unique identifier and a further code specific for the samples of tumour tissue dissected away at various sites of the tumour. The coding of sample tubes is matched to the coding on the tumour procurement form. Liquid nitrogen snap freezing may also be used as an alternative. Samples may alternatively also be frozen in a container methylbutane (isopentane) precooled on dry ice.
 9. If cryomolds (tissue containers for OCT embedding) and OCT embedding material is available, these may be used to collect a subset of small tumour specimens suitable for long-term storage.
 10. The time that tumour specimens were frozen is noted on the tumour procurement form.
 11. Frozen samples are inventoried and stored in a secured -80°C Freezer.
 12. Any sample collected for tissue culture should be processed immediately according to the SOP for this process.
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PRESSOR STANDARDIZED
TUMOR PROCUREMENT FORM

Affix patient ID sticker here
if available

Pheochromocytoma/Paraganglioma Tumor Procurement Form

Tumor code: _____	Freezer Location: _____
Patient Unique ID : _____	Birth date: (day/mo/yr) _____
	Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>
Evidence of hereditary syndrome: No: <input type="checkbox"/> Yes: <input type="checkbox"/>	
If yes: MEN 2 <input type="checkbox"/> VHL <input type="checkbox"/> NF1 <input type="checkbox"/> SDHB <input type="checkbox"/> SDHD <input type="checkbox"/> SDHC <input type="checkbox"/>	

Date of Surgery:(day/mo/yr) _____	Location of surgery: _____
Surgeon: _____	Surgical procedure: _____

First PHEO/PGL resected: Yes <input type="checkbox"/> No <input type="checkbox"/>	Tumor is recurrent: Yes <input type="checkbox"/> No <input type="checkbox"/>																		
Evidence of malignancy: Yes <input type="checkbox"/> No <input type="checkbox"/>	No. of tumors resected: _____																		
	<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Tumor A</th> <th style="width: 33%;">Tumor B</th> <th style="width: 33%;">Tumor C</th> </tr> <tr> <td>Tumor Location: _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Dimensions: (cm x cm x cm) _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Weight: (gm) _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Time resected: _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Time frozen: _____</td> <td>_____</td> <td>_____</td> </tr> </table>	Tumor A	Tumor B	Tumor C	Tumor Location: _____	_____	_____	Dimensions: (cm x cm x cm) _____	_____	_____	Weight: (gm) _____	_____	_____	Time resected: _____	_____	_____	Time frozen: _____	_____	_____
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Dimensions: (cm x cm x cm) _____	_____	_____																	
Weight: (gm) _____	_____	_____																	
Time resected: _____	_____	_____																	
Time frozen: _____	_____	_____																	
Appearance: Necrotic (N); Haemorrhagic (H); Cystic (C); Solid (S) – Include also colour																			
Use N, H, C, S & colour	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table>	_____	_____	_____															
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Samples for culture:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>															
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Normal adrenal tissue obtained?	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> </tr> </table>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>															
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Comments:
