

HEPATOBIILIARY, AMPULLARY AND PANCREATIC CARCINOMA NEXT GENERATION SEQUENCING SUB PANEL



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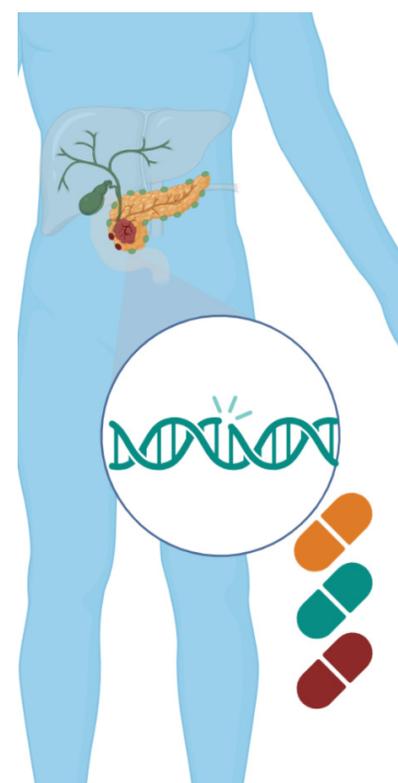
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Hepatobiliary, ampullary and pancreatic carcinomas are a group of aggressive malignancies that arise in the liver, bile ducts, gallbladder, and pancreas. These cancers are often associated with poor prognosis due to late-stage diagnosis, rapid progression, and limited therapeutic options. Molecular profiling and targeted therapies are allowing for more precise diagnostic and treatment strategies, offering hope for improved outcomes.

HEPATOBIILIARY, AMPULLARY AND PANCREATIC CARCINOMA SOMATIC NGS TESTING SUB PANEL

Mnemonic	Details	Genes tested	Turnaround time	Sample requirements
OCASUB	DNA and RNA panel, including BRCA1 and BRCA2 and MSI	ALK, APC, ARD1A, BRAF, BRCA1/2, CDKN2A, CTNNB1, IDH1, IDH2, ERBB2, ERBB3, ESR1, FBXW7, FGFR2, KRAS, MSI, NRAS, NRG1, NTRK1/2/3, PALB2, PIK3CA, PTEN, RET, ROS1, SMAD4, TP53	14 working days	Formalin Fixed Paraffin Embedded Tissue (FFPE) 8-12 normal slides (not charged) with 10 micron thick unstained recuts or 10 micron thick recuts in an Eppendorf tube or Paraffin Embedded tissue block

Diagnosis	Biomarker	Therapeutic Implications
Ampullary Carcinoma	BRAF	BRAF/MEK inhibitors (e.g., dabrafenib-trametinib)
	RET	Selpercatinib
	MSI	Immune checkpoint inhibitors
	NTRK1/2/3	TRK inhibitors (e.g., larotrectinib, entrectinib)
	KRAS G12C	Sotorasib, adagrasib
Pancreatic Carcinoma	BRAF	Larotrectinib and entrectinib
	RET	Alpelisib and capivasertib
	MSI	Alpelisib and capivasertib
	NTRK1/2/3	Selpercatinib
	BRCA 1/2	PARP-I (rucaparib)
Cholangio-Carcinoma	IDH1	IDH1 inhibitors (e.g. ivosidenib)
	IDH2	IDH2 inhibitors (e.g. enasidenib)
	ERBB2	Anti-HER2 therapies
	BRAF	BRAF/MEK inhibitors (e.g. dabrafenib-trametinib)
	BRCA 1/2, PALB2	PARP-I (rucaparib, olaparib)
	MSI	Immune checkpoint inhibitors
	NTRK1/2/3	TRK inhibitors (e.g. larotrectinib, entrectinib)
	KRAS G12C	Sotorasib, adagrasib
FGFR2	FGFR inhibitors (e.g. pemigatinib, infigratinib, derazantinib, erdafitinib)	



OTHER RELEVANT NGS TESTING OPTIONS AT AMPATH

Mnemonic	Details	Genes tested	Turnaround Time	Sample requirements
EGFRASSEQ	DNA only NGS panel	BRAF, CDKN2A, CTNNB1, ERBB2, ERBB3, KRAS, IDH1, IDH2, PIK3CA, PTEN, TP53	10 days	Formalin Fixed Paraffin Embedded Tissue (FFPE) 8-12 normal slides (not charged) with 10 micron thick unstained recuts and/or 10 micron thick recuts in an Eppendorf tube and/or Paraffin Embedded tissue block
ONCOBRCA	Somatic BRCA1 and BRCA2 genes only	BRCA1 and BRCA2	14 days	
TMB	Tumour mutational burden measurement	90 genes evaluated	14 days	