EQA steering committee met virtually on 18.11.21 having looked through this doc and the spreadsheet of responses to discuss scoring criteria.

Key:

Consensus

Potentially out of consensus losing marks or or

Outlier responses likely to lose marks

Comments added by RMB

Post meeting comments from the committee

UK National Liver Histopathology EQA Scheme

Circulation LX

Case Response Analysis

This document gives information on individual cases in circulation LX of this scheme. It contains no personal details of participants.

Case Number: LX1

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 61. heterogenous pattern liver; known significant alcohol intake. elevated ALT/AST/ gamma GT; viral screen negative. Auto-antibodies negative

Specimen: Liver biopsy

Macroscopic: 2 cores of liver combined length 18mm

Immunohistochemistry: Retic and Masson trichrome provided

Original Diagnosis: cirrhosis with steatohepatitis consistent with alcohol

Tumour:	**Popularity:**

- No tumour/lesion present	100.0%
Other (please specify in Comments)	1.2%

Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		76
- No tumour/lesion present	- No tumour/lesion present	9
- No tumour/lesion present	Other (please specify in Comments)	1

Pattern:	Popularity:
steatohepatitis	45.3%
steatosis	40.7%
chronic hepatitis	10.5%
Other (please specify in Comments)	10.5%
abnormal, no pattern discernible	5.8%
cholestasis, bilirubinostasis	3.5%
not applicable	3.5%
lobular hepatitis	1.2%
vascular disease	1.2%

Pattern 1:	Pattern 2:	Count:
steatohepatitis		28
steatosis		20
Other (please specify in Comments) *all mention min or trivial fat and don't suggest another pattern*		6
chronic hepatitis		4
chronic hepatitis	steatosis	3
steatosis	steatohepatitis	2
Both have other as diagnosis, both mention ArLD in comments, 1 considered Fe, the other slightly wider DD		2
abnormal, no pattern discernible *all have FLD variants as diagnostic choice or in comment*		2
steatosis	abnormal, no pattern discernible	2
steatohepatitis	cholestasis, bilirubinostasis	2
steatohepatitis	steatosis	2
steatohepatitis	vascular disease	1
chronic hepatitis	chronic hepatitis	1
steatohepatitis	chronic hepatitis	1
steatosis	lobular hepatitis	1
steatohepatitis	not applicable	1
steatosis	not applicable	1
steatohepatitis	Other (please specify in Comments)*no second pattern described*	1
steatosis	Other (please specify in Comments) *inflammation likely non specific*	1
steatohepatitis	steatohepatitis	1
not applicable *has FLD as diagnosis*		1
abnormal, no pattern discernible	steatosis	1
cholestasis, bilirubinostasis	steatosis	1
Other (please specify in Comments) *no second pattern described*	steatosis	1

Combining steatosis and steatohepatitis with other and 'no pattern' and 'not applicable' =70 saying fat in some form.
9 thought fatty pattern and a second pattern
5 pattern other than fatty

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	91.9%
fibrosis with bridging between vascular structures	5.8%
mild/early fibrosis without bridging	1.2%
Other (please specify in Comments)	1.2%

5 bridging
1 mild
1 other advanced fibrosis cannot be excluded

Diagnostic categories:	Popularity:
fatty liver disease - alcohol related liver disease	55.8%
fatty liver disease - either alcohol or non-alcohol	19.8%
- histologically indeterminate for cause	18.6%
Other (please enter alternative diagnosis in comments box)	7.0%
acute / subacute hepatitis - autoimmune / drug / viral	2.3%
autoimmune hepatitis	2.3%
ductal plate malformation/polycystic liver disease/congenital hepatic fibrosis	1.2%

Diagnosis Combination:	Count:
fatty liver disease - alcohol related liver disease	45
fatty liver disease - either alcohol or non-alcohol	15
- histologically indeterminate for cause, *10 of these have possible ArLD in comment the other 2 think not Arld*	10 2
Other (please enter alternative diagnosis in comments box) 6 *have possible ArLD in comment*	6
- histologically indeterminate for cause, fatty liver disease - alcohol related liver disease	2
- histologically indeterminate for cause, fatty liver disease - either alcohol or non-alcohol	2
acute / subacute hepatitis - autoimmune / drug / viral	1
acute / subacute hepatitis - autoimmune / drug / viral, autoimmune hepatitis	1
autoimmune hepatitis, fatty liver disease - alcohol related liver disease	1
ductal plate malformation/polycystic liver disease/congenital hepatic fibrosis	1

80 consider ArLD as main or likely diagnosis
1 considering an additional/second diagnosis
5 making another diagnosis or saying not ArLD

Consensus for: Fatty liver pattern of some kind. Advanced fibrosis. Fatty liver diagnosis including ArLD.

Lose 5 if less than advanced fibrosis
Lose 5 for suggesting a second disease, giving a second pattern won't by itself lose 5 unless that lead to suggesting a second diagnosis
Lose 10 if no consideration of fatty liver disease pattern or diagnosis, making another D.

Committee agreed these criteria, should include ArLD in response for full marks.

Original report and further information (if any): cirrhosis with steatohepatitis consistent with alcohol

---

Case Number: LX2

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 62. Abnormal liver function tests; positive AMA; elevated IgM; Elevated Alkaline phospatase; elevated Gamma GT; positive ANA; NEGATIVE for anti-smooth muscle; LKM1;

Specimen: Liver biopsy

Macroscopic: 2 cores liver combined length 20m

Immunohistochemistry: retic and HVG provided

Original Diagnosis: primary biliary cholangitis

Tumour:	**Popularity:**
- No tumour/lesion present	100.0%

Tumour 1:	**Tumour 2:**	**Count:**
- No tumour/lesion present		77
- No tumour/lesion present	- No tumour/lesion present	9

Pattern:	**Popularity:**
chronic biliary disease	86.0%
lobular hepatitis	24.4%
chronic hepatitis	24.4%
granulomatous	15.1%
Other (please specify in Comments)	8.1%
not applicable	4.7%
cholestasis, bilirubinostasis	1.2%

Pattern 1:	Pattern 2:	Count:
chronic biliary disease		25
chronic biliary disease	lobular hepatitis	17
chronic biliary disease	chronic hepatitis	11
chronic biliary disease	granulomatous	9
chronic hepatitis	chronic biliary disease	4
chronic biliary disease	Other (please specify in Comments) *all 3 inflam prominent ?overlap,*	3
chronic biliary disease	not applicable	2
chronic hepatitis	*1 makes D of overlap, 1 makes D AIH 'no granuloma or ductopoaenia'*	1 1
not applicable	*Gives description of PBCand has PBC as D*	2
Other (please specify in Comments)	*Favoured D of PBC*	2
chronic biliary disease	cholestasis, bilirubinostasis	1
granulomatous	chronic biliary disease	1
lobular hepatitis	chronic biliary disease	1
granulomatous	chronic hepatitis *PBC AIH crossover*	1
lobular hepatitis	chronic hepatitis *makes D AIH considers healed granuloma but no mention PBC*	1
granulomatous	Other (please specify in Comments*) likely PBC consider overlap*	1
lobular hepatitis	Other (please specify in Comments) *favour PBC/overlap 'no granulomas*	1
chronic hepatitis	Granulomatous *histology would corroborate overlap*	1
chronic hepatitis	lobular hepatitis *makes D AIH*	1

Chronic biliary either alone or with granulomas or cholestasis (n=1) or NA or 'other' where biliary features described = 46
Chronic biliary and hepatitis either chronic or lobular = 33
Combining these = 78
Of those choosing patterns other than chronic biliary:
3 describe biliary/PBC +/- overlap.
3 don't mention biliary, make D AIH

Stages:	Popularity:
mild/early fibrosis without bridging	58.1%
fibrosis with bridging between vascular structures	15.1%
hepatocyte loss or bridging - favour collapse not fibrosis	12.8%
no fibrosis/equivocal fibrosis	9.3%
Other (please specify in Comments)	2.3%
advanced fibrosis with bridging and nodularity/cirrhosis	2.3%

No consensus

Diagnostic categories:	Popularity:
primary biliary cholangitis	82.6%
overlap syndrome	27.9%
autoimmune hepatitis	9.3%
Other (please enter alternative diagnosis in comments box)	5.8%
acute / subacute hepatitis - autoimmune / drug / viral	3.5%
fatty liver disease - non-alcohol related fatty liver disease	1.2%
chronic cholangiopathy NOS	1.2%

Diagnosis Combination:	Count:
primary biliary cholangitis	44
overlap syndrome, primary biliary cholangitis	14
overlap syndrome	10
autoimmune hepatitis, primary biliary cholangitis	6
Other (please enter alternative diagnosis in comments box), primary biliary cholangitis *all consider overlap*	4
acute / subacute hepatitis - autoimmune / drug / viral, primary biliary cholangitis *both considering overlap*	2
autoimmune hepatitis *both no mention biliary*	2
acute / subacute hepatitis - autoimmune / drug / viral *in comments AIH*	1
chronic cholangiopathy NOS *highly suggestive PBC*	1
fatty liver disease - non-alcohol related fatty liver disease, primary biliary cholangitis *no comments*	1
Other (please enter alternative diagnosis in comments box) *favoured D PBC*	1

Consensus for; chronic biliary pattern +/- either chronic or lobular hepatitis. For diagnosis PBC +/- overlap = 82

Lose 10 if no biliary pattern recognised/no biliary diagnosis considered = 3

1 response fatty and PBC not further qualified? Score 5? Committee agreed

Original report and further information (if any): primary biliary cholangitis

Committee felt that any suggestion of overlap should be accompanied by a comment recognising incomplete clinical info and the need for an MDT discussion of these cases. Not to be scored down this time but to encourage members that whenever they are choosing two patterns or two diagnoses this should be supported by a comment re which is dominant and what further info might help to inform/resolve the issue.

53% suggested overlap, this would be a good topic for future annual update session.

Case Number: LX3

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 61M. PSC, recurrent cholangitis, intrahepatic duct stones. Liver Transplant

Specimen: liver expant.

Macroscopic: bile stained cirrhotic liver 2972g, with frequent intrahepatic calculi

Immunohistochemistry: Two blocks, A1 and A2. A1 also Shikata, van Gieson, CK7

Original Diagnosis: PSC good example.

Tumour:	Popularity:
- No tumour/lesion present	97.7%
hepatocellular lesion, well differentiated NOS (please add comment)	1.2%

Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		77
- No tumour/lesion present	- No tumour/lesion present	7
		1
hepatocellular lesion, well differentiated NOS (please add comment)		1

1 macroregenerative nodule

Pattern:	Popularity:
chronic biliary disease	94.2%
cholestasis, bilirubinostasis	41.9%
not applicable	2.3%
Other (please specify in Comments)	2.3%
iron overload	1.2%
abnormal, no pattern discernible	1.2%

Pattern 1:	Pattern 2:	Count:
chronic biliary disease		43
chronic biliary disease	cholestasis, bilirubinostasis	28
cholestasis, bilirubinostasis	chronic biliary disease	7
not applicable	*Both give D PSC one with biliary features in comment*	2
Other (please specify in Comments)	Makes D PSC	1
abnormal, no pattern discernible	*Makes D PSC*	1
cholestasis, bilirubinostasis	*Makes D PSC and described ductopoenia*	1
chronic biliary disease	chronic biliary disease	1
chronic biliary disease	iron overload	1
chronic biliary disease	Other (please specify in Comments) *nothing written in comments!*	1

Just 1 outlier giving additional Fe overload D

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	98.8%

Complete consensus

Diagnostic categories:	Popularity:
primary sclerosing cholangitis	95.3%
hepatolithiasis	30.2%
large bile duct obstruction	9.3%
iron overload, hereditary	2.3%
primary biliary cholangitis	1.2%
vanishing bile duct syndrome	1.2%
granulomatous disease NOS (please specify in comments box)	1.2%
Other (please enter alternative diagnosis in comments box)	1.2%
chronic cholangiopathy NOS	1.2%

Diagnosis Combination:	Count:
primary sclerosing cholangitis	48
hepatolithiasis, primary sclerosing cholangitis	25
large bile duct obstruction, primary sclerosing cholangitis	6
iron overload, hereditary, primary sclerosing cholangitis	2
chronic cholangiopathy NOS, large bile duct obstruction *It is possible that the diagnosis of PSC was erroneous review imaging*	1
granulomatous disease NOS (please specify in comments box), primary biliary cholangitis *describes granulomatous destruction of bile ducts in comment, chronic biliary disease pattern*	1
hepatolithiasis, vanishing bile duct syndrome *presumably due to PSC although diagnostic lesions not seen*	1
large bile duct obstruction *complication of PSC*	1
Other (please enter alternative diagnosis in comments box), primary sclerosing cholangitis *PSC and its complication*	1

Consensus for:
Biliary pattern and/or biliary diagnosis. Advanced fibrosis stage (100%). Diagnosis – PSC +/- stones

1 macroregen nodule? – not to score down it's a cirrhotic section. 2 suggesting additional iron overload, no Perl stain, not to score down 2 slightly less firm diagnoses of PSC, not to score down

1 PBC score 5 as recognises chronic biliary disease pattern but then describes granulomas.

Committee – as above, 1 person no stage given score 5

Original report and further information (if any): PSC good example.

Case Number: LX4

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Female 57. Coeliac disease. IDDM since 21 years old. Raised ALT and bilirubin, drop in albumin +ANA. Raised IgG A M treated with prednisolone. AIH? index grading? acute/chronic/cirrhosis?

Specimen: Liver biopsy

Macroscopic: two cores 25 and 30mm both bisected

Immunohistochemistry: nil

Original Diagnosis: cirrhosis but likely mixture of acute and chronic changes, severe inflammation ongoing fully in keeping with autoimmune hepatitis.

Tumour:	Popularity:
- No tumour/lesion present	100.0%

Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		79
- No tumour/lesion present	- No tumour/lesion present	7

Pattern:	Popularity:
chronic hepatitis	83.7%
lobular hepatitis	29.1%
cholestasis, bilirubinostasis	5.8%
steatosis	4.7%
Other (please specify in Comments)	4.7%
not applicable	2.3%
steatohepatitis	2.3%
chronic biliary disease	1.2%

Pattern 1:	Pattern 2:	Count:
chronic hepatitis		42
lobular hepatitis		10
chronic hepatitis	lobular hepatitis	8
lobular hepatitis	chronic hepatitis	6
chronic hepatitis	cholestasis, bilirubinostasis *presumably as part of AH?*	5
chronic hepatitis	Other (please specify in Comments) *1 may be NAFLD component but borderline1 likely underlying FLD also1 no reference to second pattern in comments*	1 2
chronic hepatitis	steatosis	3
chronic hepatitis	steatohepatitis	2
not applicable	*both make D AIH*	2
chronic biliary disease	chronic hepatitis *makes D of AIH HAI in comments*	1
chronic hepatitis	chronic hepatitis	1
lobular hepatitis	Other (please specify in Comments) *favours AIH exclude viral*	1
steatosis	chronic hepatitis	1
	Makes D AIH and describes hepatitis	1

Hepatitis chronic or lobular as pattern or make AIH diagnosis/make hepatitis comments, include those with additional cholestasis = 77
Hepatitis and additional FLD = 8
1 chronic biliary disease (makes D AIH)

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	84.9%
hepatocyte loss or bridging - favour collapse not fibrosis	7.0%
fibrosis with bridging between vascular structures	7.0%
Other (please specify in Comments)	1.2%

No connective tissue stains
73 advanced - consensus
6 bridging

6 favour acute
1 other ‘acute on chronic’

Diagnostic categories:	Popularity:
autoimmune hepatitis	97.7%
fatty liver disease - non-alcohol related fatty liver disease	7.0%
acute / subacute hepatitis - autoimmune / drug / viral	4.7%
drug induced liver injury (please specify in comments box)	2.3%
Other (please enter alternative diagnosis in comments box)	1.2%

Diagnosis Combination:	Count:
autoimmune hepatitis	73
autoimmune hepatitis, fatty liver disease - non-alcohol related fatty liver disease	6
acute / subacute hepatitis - autoimmune / drug / viral	2
acute / subacute hepatitis - autoimmune / drug / viral, autoimmune hepatitis	2
autoimmune hepatitis, drug induced liver injury (please specify in comments box) *1 the AIH may be part of DILI spectrum 1 AIH may be drug induced*	2
autoimmune hepatitis, Other (please enter alternative diagnosis in comments box) *may be MAFLD component but borderline*	1

Consensus for AIH alone 4 include wider DD of hepatitis 7 consider additional FLD 2 considers ‘additional’ DILI comment AIH may be drug induced

No points sufficiently different to warrant losing marks. There is a consensus for advanced fibrosis but no CT stain therefore not to score? There was an HVG

Committee only scoring will be for stage

Original report and further information (if any): cirrhosis but likely mixture of acute and chronic changes, severe inflammation ongoing fully in keeping with autoimmune hepatitis.

Case Number: LX5

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Female 46. liver mets of unknown primary. Lesion in right lobe targeted

Specimen: targetted liver biopsy

Macroscopic: one core 16mm long

Immunohistochemistry: none

Original Diagnosis: granulomatous inflammation. ZN and PCR -ve. resolved and no cause found.

Tumour:	Popularity:
- No tumour/lesion present	80.2%
Other (please specify in Comments)	19.8%
inflammatory pseudotumour	2.3%

metastasis (further comment in Comments)	1.2%

Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		62
Other (please specify in Comments) *none make D of mass lesion acknowledging history/targeted Bx*		14
- No tumour/lesion present	- No tumour/lesion present	4
- No tumour/lesion present	Other (please specify in Comments) *none make D mass lesion*	3
inflammatory pseudotumour *neither make D mass lesion*		2
metastasis (further comment in Comments)	*Metastatic small cel undiff Ca*	1

Pattern:	Popularity:
granulomatous	90.7%
Other (please specify in Comments)	8.1%
not applicable	8.1%
lobular hepatitis	1.2%
cholestasis, bilirubinostasis	1.2%
chronic hepatitis	1.2%

Pattern 1:	Pattern 2:	Count:
granulomatous		67
not applicable *all describe granulomas*		6
granulomatous	Other (please specify in Comments) *4 no second pattern in comments 1 look at slides to exclude tumour*	5
granulomatous	granulomatous	2
Other (please specify in Comments)	*Both describe granulomas*	2
granulomatous	cholestasis, bilirubinostasis *no further mention /interpretation of second pattern*	1
granulomatous	chronic hepatitis *no further mention /interpretation of second pattern*	1
granulomatous	lobular hepatitis *eosinophils raising poss HLneo*	1
granulomatous	not applicable	1

Stages:	Popularity:
not applicable / no special stains to assess architecture	82.6%
hepatocyte loss or bridging - favour collapse not fibrosis	5.8%
mild/early fibrosis without bridging	2.3%
fibrosis with bridging between vascular structures	1.2%
no fibrosis/equivocal fibrosis	1.2%
Other (please specify in Comments)	1.2%

Consensus for NA

Diagnostic categories:	Popularity:
granulomatous disease NOS (please specify in comments box)	80.2%
non-hepatotrophic - viral, bacterial, parasitic (please specify in comment box)	9.3%
manifestation of systemic or extrahepatic disease (please specify in comments box)	3.5%
- histologically indeterminate for cause	2.3%

Other (please enter alternative diagnosis in comments box)	2.3%
- not applicable (insufficient non-lesional tissue)	1.2%

Diagnosis Combination:	**Count:**
granulomatous disease NOS (please specify in comments box)	66
non-hepatotrophic - viral, bacterial, parasitic (please specify in comment box)	7
[No selections made] 3 describe grans and DD 1 is the carcinoma case	3 1
- histologically indeterminate for cause *1 mentions excluding HL*	2
granulomatous disease NOS (please specify in comments box), manifestation of systemic or extrahepatic disease (please specify in comments box) *gran DD etc*	2
Other (please enter alternative diagnosis in comments box) *grans and DD*	2
- not applicable (insufficient non-lesional tissue) *all else gran etc*	1
granulomatous disease NOS (please specify in comments box), non-hepatotrophic - viral, bacterial, parasitic (please specify in comment box) *gran DD etc*	1
manifestation of systemic or extrahepatic disease (please specify in comments box) *gran DD etc*	1

Strong consensus for granulomatous pattern majority considering infectious aetiology/TB, few mention HLneo as DD (important to remember)

Just 1 to score 0 malignant D

Committee felt that there should be a specific mention of a potential infectious aetiology – no mention of this lose 5

Original report and further information (if any): granulomatous inflammation. ZN and PCR -ve. resolved and no cause found.

Case Number: LX6

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 58. chronic liver disease due to haemochromatosis diagnosed in 2020. HCC 24mm seg 8 previous TACE, also 8mm LIRADS 4 lesion segment 5

Specimen: liver explant

Macroscopic: liver 2249g, nodular appearance. Lesions 21mm in segment 8, and 8mm segment 5. This is segment 8 lesion and background liver.

Immunohistochemistry: Segment 8 lesion, also background liver Perls and van Gieson.

Original Diagnosis: haemochromatosis, fibrosis, not cirrhotic. HCC with partial necrosis (no TACE beads visible)

Tumour:	**Popularity:**
hepatocellular carcinoma	94.2%

Other (please specify in Comments)	5.8%
hepatocellular carcinoma variant (specify in Comments)	2.3%

Tumour 1:	Tumour 2:	Count:
hepatocellular carcinoma		76
Other (please specify in Comments) *all favour HCC but 2 consider DD NEC and 1 cholngiocelllar diff*		3
hepatocellular carcinoma	hepatocellular carcinoma	3
hepatocellular carcinoma	Other (please specify in Comments) *neither specify a second lesion*	2
hepatocellular carcinoma variant (specify in Comments) *1 intermediate cell features short of combined HCC CCa 1 no variant mentioned*		2

Pattern:	Popularity:
iron overload	97.7%
chronic hepatitis	1.2%
Other (please specify in Comments)	1.2%

Pattern 1:	Pattern 2:	Count:
iron overload		82
iron overload	chronic hepatitis *no further mention/interpretation of second pattern*	1
iron overload	iron overload	1
Other (please specify in Comments)	Other (please specify in Comments) *no mention Fe overload*	1
	Fe Does describe	1

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	70.9%
fibrosis with bridging between vascular structures	26.7%
not applicable / no special stains to assess architecture *n=1*	1.2%
mild/early fibrosis without bridging *n=1*	1.2%

Combine at least bridging for consensus

Diagnostic categories:	Popularity:
iron overload, hereditary	97.7%
iron overload - acquired, secondary	2.3%
Other (please enter alternative diagnosis in comments box)	1.2%
- not applicable (insufficient non-lesional tissue)	1.2%
- histologically indeterminate for cause	1.2%

Diagnosis Combination:	Count:
iron overload, hereditary	82
- histologically indeterminate for cause, - not applicable (insufficient non-lesional tissue)	1
iron overload - acquired, secondary *says HCtosis in comment*	1
iron overload - acquired, secondary, iron overload, hereditary *both!*	1
iron overload, hereditary, Other (please enter alternative diagnosis in comments box) *no additional D given*	1

Strong consensus for HCC (some do consider DD especially NEC) and at least bridging fibrosis and background Fe overload/hered HCtosis.

Lose 5 for mild fibrosis or NA (there was a stain) Lose 5 for not recognising Fe and Diagnosis

Committee Fe in any form OK

Original report and further information (if any): haemochromatosis, fibrosis, not cirrhotic. HCC with partial necrosis (no TACE beads visible)

Case Number: LX7

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Female 79. ON TPN for short bowel, formular recently changed, Also on Atorvastatin. Increased Bilirubin, jaundice ANA pos >6400, SMA neg IgG 17 ALT 295 TBILI 365 ALP 190

Specimen: liver biopsy, transjugular

Macroscopic: 3 cores of tissue 12-17mm

Immunohistochemistry: None

Original Diagnosis: Probable TPN related cholestatic hepatitis Also exclude sepsis and large duct obstruction (was excluded later) and drug (Atorvastatin was stopped)

Tumour:	Popularity:
- No tumour/lesion present	100.0%

Tumour 1:	Tumour 2:	Count:
- No tumour/lesion present		83
- No tumour/lesion present	- No tumour/lesion present	3

Pattern:	Popularity:
cholestasis, bilirubinostasis	93.0%
steatosis	38.4%
lobular hepatitis	23.3%
steatohepatitis	23.3%
chronic biliary disease	2.3%
not applicable	2.3%
chronic hepatitis	1.2%
Other (please specify in Comments)	1.2%

Pattern 1:	Pattern 2:	Count:
cholestasis, bilirubinostasis	steatosis	28
cholestasis, bilirubinostasis	lobular hepatitis	12
cholestasis, bilirubinostasis	steatohepatitis	12
cholestasis, bilirubinostasis		9

lobular hepatitis	cholestasis, bilirubinostasis	7
steatohepatitis	cholestasis, bilirubinostasis	6
steatosis	cholestasis, bilirubinostasis	3
cholestasis, bilirubinostasis	chronic biliary disease	2
not applicable		2
steatosis		1
cholestasis, bilirubinostasis	cholestasis, bilirubinostasis	1
lobular hepatitis	steatohepatitis	1
Other (please specify in Comments)	steatohepatitis	1
chronic hepatitis	steatosis	1

Cholestasis and fat = 49
Consensus for cholest either alone or in combination with other things (fat, lobular hep, chronic bil)

6 no cholest pattern selection, 5 of these have PN liver disease in comment. 1 makes viral hep D

Stages:	**Popularity:**
mild/early fibrosis without bridging	59.3%
no fibrosis/equivocal fibrosis	14.0%
Other (please specify in Comments)	9.3%
fibrosis with bridging between vascular structures	9.3%
hepatocyte loss or bridging - favour collapse not fibrosis	3.5%
subtle architectural abnormalities, vascular disease	2.3%
not applicable / no special stains to assess architecture	1.2%

No consensus, no stain

Diagnostic categories:	**Popularity:**
drug induced liver injury (please specify in comments box)	43.0%
Other (please enter alternative diagnosis in comments box)	41.9%
fatty liver disease - non-alcohol related fatty liver disease	14.0%
manifestation of systemic or extrahepatic disease (please specify in comments box)	10.5%
autoimmune hepatitis	4.7%
acute / subacute hepatitis - autoimmune / drug / viral	2.3%
primary sclerosing cholangitis	1.2%
fatty liver disease - either alcohol or non-alcohol	1.2%
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box)	1.2%

Diagnosis Combination:	**Count:**
Other (please enter alternative diagnosis in comments box)	30
drug induced liver injury (please specify in comments box)	26
manifestation of systemic or extrahepatic disease (please specify in comments box)	6
drug induced liver injury (please specify in comments box), fatty liver disease - non-alcohol related fatty liver disease	5
autoimmune hepatitis, drug induced liver injury (please specify in comments box)	3
drug induced liver injury (please specify in comments box), Other (please enter alternative diagnosis in comments box)	2
fatty liver disease - non-alcohol related fatty liver disease	2
fatty liver disease - non-alcohol related fatty liver disease, Other (please enter alternative diagnosis in comments box)	2
[No selections made]	1

acute / subacute hepatitis - autoimmune / drug / viral	1
acute / subacute hepatitis - autoimmune / drug / viral, fatty liver disease - non-alcohol related fatty liver disease	1
autoimmune hepatitis	1
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box)	1
drug induced liver injury (please specify in comments box), manifestation of systemic or extrahepatic disease (please specify in comments box)	1
fatty liver disease - either alcohol or non-alcohol, Other (please enter alternative diagnosis in comments box)	1
fatty liver disease - non-alcohol related fatty liver disease, manifestation of systemic or extrahepatic disease (please specify in comments box)	1
fatty liver disease - non-alcohol related fatty liver disease, primary sclerosing cholangitis	1
manifestation of systemic or extrahepatic disease (please specify in comments box), Other (please enter alternative diagnosis in comments box)	1

Some DILI selected in comments say statin, others DILI selection and in comments PN. In comments 72 mention/favour IFLAD often with DD. Will have to ask members, lose 10 if no consideration of PN liver disease in DD? Couple say DILI and don't further comment if they mean statin or PN. Lose 5 if no specific mention PN but give other widely considered DDs? Lose 10 firm diagnosis outside of consensus of widely considered DDs (viral and AIH)?

Committee – ask members is it OK to find the consensus from the comments? There will be cases that do not fit neatly into the dropdown boxes – this is where 'other' and writing a comment is helpful.
Lose 5 if describe cholestasis but do not consider IFLAD (or synonyms) anywhere in response
Lose 10 for D of AIH or hep B

Original report and further information (if any): Probable TPN related cholestatic hepatitis Also exclude sepsis and large duct obstruction (was excluded later) and drug (Atorvastatin was stopped)

Case Number: LX8

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 33. Known IBD(U), abnormal LFTs for 4 years. MRCP normal, need to rule out small duct PSC. ALT 115, ALP 451, normal bilirubin, clotting and albumin. Immunology/serology negative.

Specimen: liver biopsy

Macroscopic: 3 cores up to 18mm long

Immunohistochemistry: Orcein, DPAS, van Gieson, CK7

Original Diagnosis: consistent with small duct PSC - early stage chronic biliary disease without ductopenia

Tumour:	**Popularity:**
- No tumour/lesion present	98.8%

Tumour 1:	**Tumour 2:**	**Count:**
- No tumour/lesion present		82
- No tumour/lesion present	- No tumour/lesion present	3

	1

Pattern:	Popularity:
chronic biliary disease	93.0%
chronic hepatitis	5.8%
cholestasis, bilirubinostasis	4.7%
not applicable	2.3%
Other (please specify in Comments)	2.3%
granulomatous	1.2%
abnormal, no pattern discernible	1.2%

Pattern 1:	Pattern 2:	Count:
chronic biliary disease		72
chronic biliary disease	chronic hepatitis *1 makes D PSC and no further mention CH aetiology* *1 chronic cholangiopathy and PSC in comments no further mention CH aetiology 1 cholangiopathy NOS poss DILI no mention PSC*	2 1
not applicable	*1 says chronic cholangiopathy and small duct PSC* *1 says manifest systemic dis small duct dis 2y to CIBD*	1 1
chronic biliary disease	cholestasis, bilirubinostasis *1 makes D PSC, 1 cholangiopathy NOS no def PSC*	1 1
cholestasis, bilirubinostasis	chronic biliary disease *makes D PSC*	1
chronic biliary disease	chronic biliary disease	1
granulomatous	chronic hepatitis *cholangiopathy NOS not PSC*	1
cholestasis, bilirubinostasis	Other (please specify in Comments) *AIH or DILI rather than PSC*	1
chronic biliary disease	Other (please specify in Comments) *no second pattern specified in comments*	1
chronic hepatitis	*Chronic cholangiopathy NOS morphology of PSC is not there*	1
abnormal, no pattern discernible	*Cholangiopathy NOS don't specify PSC*	1

Consensus for chronic biliary disease alone = 72

Stages:	Popularity:
mild/early fibrosis without bridging	74.4%
no fibrosis/equivocal fibrosis	16.3%
fibrosis with bridging between vascular structures	8.1%
advanced fibrosis with bridging and nodularity/cirrhosis	1.2%

Consensus for no/equivocal or mild combined
N=8 saying bridging fibrosis or advanced (n=1)

Diagnostic categories:	Popularity:
primary sclerosing cholangitis	73.3%
chronic cholangiopathy NOS	23.3%
drug induced liver injury (please specify in comments box)	3.5%
primary biliary cholangitis	3.5%
vanishing bile duct syndrome	2.3%
autoimmune hepatitis	1.2%

manifestation of systemic or extrahepatic disease (please specify in comments box)	1.2%
Other (please enter alternative diagnosis in comments box)	1.2%

Diagnosis Combination:	Count:
primary sclerosing cholangitis	57
chronic cholangiopathy NOS *12 have favour or ikw PSC in comment, 1 no comment, 4 don't think PSC*	12 5
chronic cholangiopathy NOS, primary sclerosing cholangitis	2
drug induced liver injury (please specify in comments box), primary sclerosing cholangitis	2
primary biliary cholangitis *no comments offered*	2
autoimmune hepatitis, drug induced liver injury (please specify in comments box)	1
chronic cholangiopathy NOS, Other (please enter alternative diagnosis in comments box) *most likely PSC in comments no second disease described*	1
manifestation of systemic or extrahepatic disease (please specify in comments box) *small duct disease 2y CIBD*	1
primary biliary cholangitis, primary sclerosing cholangitis one granuloma like structure	1
primary sclerosing cholangitis, vanishing bile duct syndrome	1
vanishing bile duct syndrome	1

Consensus for chronic biliary disease pattern, mild or less fibrosis and D of PSC (73).

Lose 5 if bridging or worse. Lose 5 if describe something biliary but don't say PSC (PBC? ? ask members also small duct disease 2y to IBD don't say PSC)

Lose 10 if nothing biliary in response and/or making alternative diagnosis

Committee PBC should lose marks, lose marks if no specific mention of PSC.

Original report and further information (if any): consistent with small duct PSC - early stage chronic biliary disease without ductopenia

---

Case Number: LX9

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 58. chronic liver disease - same explant as case LX6. this is 8mm segment 5 lesion.

Specimen: liver explant

Macroscopic: liver 2249g, nodular appearance. Lesions 21mm in segment 8, and 8mm segment 5. This is segment 5 lesion.

Immunohistochemistry: 8mm lesion, two sections. also reticulin, CK34, glutamine synthetase

Original Diagnosis: this is FNH-like nodule in patient with haemochromatosis and HCC elsewhere.

Tumour:	Popularity:

focal nodular hyperplasia	91.9%
Other (please specify in Comments)	3.5%
hepatocellular lesion, well differentiated NOS (please add comment)	2.3%
hepatocellular lesion - dysplastic nodule	1.2%
hepatocellular carcinoma	1.2%
hepatocellular adenoma NOS	1.2%
hepatocellular adenoma beta catenin activated	1.2%
- No tumour/lesion present	1.2%

Tumour 1:	**Tumour 2:**	**Count:**
focal nodular hyperplasia		75
focal nodular hyperplasia	focal nodular hyperplasia	2
hepatocellular lesion, well differentiated NOS (please add comment) 1 cannot exclude well diff HCC, 1 favour HCC in comment		1 1
Other (please specify in Comments) *regen nodule*		1
focal nodular hyperplasia	hepatocellular adenoma NOS *in comment favour FNH would ask re GS*	1
- No tumour/lesion present	Other (please specify in Comments) *large regen nodule FNH like*	1
focal nodular hyperplasia	Other (please specify in Comments) *DD inflam HCA*	1
hepatocellular adenoma beta catenin activated *nil else in response*		1
hepatocellular carcinoma		1
hepatocellular lesion - dysplastic nodule	*'see case 6'*	1

Pattern:	**Popularity:**
iron overload	83.7%
not applicable	3.5%
cholestasis, bilirubinostasis	2.3%
Other (please specify in Comments)	2.3%
chronic hepatitis	1.2%
abnormal, no pattern discernible	1.2%

Pattern 1:	**Pattern 2:**	**Count:**
iron overload		71
	2 have Fe overload hered in D, 1 Fe overload as case 6, 2 no mention	3 2
not applicable *1 nothing else filled in 1 already discussed in Qu 6*		2
Other (please specify in Comments) *both Fe overload hered D*		2
cholestasis, bilirubinostasis	cholestasis, bilirubinostasis *makes D gran dis and other*	1
iron overload	iron overload	1
not applicable	not applicable *no mention Fe*	1
abnormal, no pattern discernible *Fe overload hered in D*		1
cholestasis, bilirubinostasis *no mention Fe*		1
chronic hepatitis *Fe overload hered in D*		1

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	62.8%
fibrosis with bridging between vascular structures	23.3%
not applicable / no special stains to assess architecture *2 out of 6 put see Qu6*	7.0%
no fibrosis/equivocal fibrosis n=1	1.2%
mild/early fibrosis without bridging n=1	1.2%

4 no answer, 1 ref Qu 6

Diagnostic categories:	Popularity:
iron overload, hereditary	80.2%
Other (please enter alternative diagnosis in comments box)	5.8%
granulomatous disease NOS (please specify in comments box)	1.2%
- not applicable (insufficient non-lesional tissue)	1.2%
iron overload - acquired, secondary	1.2%

Diagnosis Combination:	Count:
iron overload, hereditary	69
[No selections made] *1 Fe n comment rest nil*	19
Other (please enter alternative diagnosis in comments box) *2 mention Fe in comment*	22
- not applicable (insufficient non-lesional tissue) *already disc Qu6*	1
granulomatous disease NOS (please specify in comments box), Other (please enter alternative diagnosis in comments box)	1
iron overload - acquired, secondary	1

Consensus for FNH,

Lose 5 for other benign D
Lose 10 for malignant D n=2

Should we score background again? Consensus for background Fe overload pattern and hered HCtosis, at least bridging. Lose 5 for less than bridging. Lose 5 no mention background Fe overload. Lose 10 if alternative disease offered for background?

Committee not to score on background again for this case. Just score for the lesion. Cannot exclude HCC score 5 definite HCC score 0. Debate if we should consider neoplastic lesions separately but decision to score 5 all benign diagnoses.

Original report and further information (if any): this is FNH-like nodule in patient with haemochromatosis and HCC elsewhere.

Case Number: LX10

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Female 78. Abnormal Liver function tests; ALT 1100; Alkaline phosphatase 300; Ducts not dilated on imaging; Liver normal on imaging; Autoantibodies negative; Immunoglobulinbs normal; HAV/HBV/HCV negative ; recetn use of Flucloxacillin

Specimen: Liver biopsy

Macroscopic: 3 cores of liver, combined length 37mm

Immunohistochemistry: retic provided

Original Diagnosis: Drug induced liver injury- pattern of bland cholestsis with mnimal inflammation

Tumour:	**Popularity:**
- No tumour/lesion present	97.7%
leukaemia/lymphoma (please specify in Comments)	1.2%

Tumour 1:	**Tumour 2:**	**Count:**
- No tumour/lesion present		81
- No tumour/lesion present	- No tumour/lesion present	3
		1
leukaemia/lymphoma (please specify in Comments)		1

Pattern:	**Popularity:**
cholestasis, bilirubinostasis	83.7%
Other (please specify in Comments)	14.0%
chronic hepatitis	12.8%
lobular hepatitis	9.3%
not applicable	4.7%
steatosis	3.5%
chronic biliary disease	3.5%

Pattern 1:	**Pattern 2:**	**Count:**
cholestasis, bilirubinostasis		44
cholestasis, bilirubinostasis	Other (please specify in Comments) *6 no 'other' described 2 possible duct loss*	8
cholestasis, bilirubinostasis	lobular hepatitis *all say DILI some imply lob hep part of DILI*	5
cholestasis, bilirubinostasis	chronic hepatitis *2 mention portal inflam but don't go further re CH all 4 say DILI*	4
Other (please specify in Comments)	*All say DILI 2 mention cholest 2 not*	2 2
chronic hepatitis	cholestasis, bilirubinostasis *all say DILI (1 fluoxetine)*	3
chronic hepatitis	*All say DILI and nothing rel to CH in comment no description cholst*	3
not applicable	*All describe cholest and say DILI*	3
cholestasis, bilirubinostasis	Steatosis *all 3 say DILI 1 steatosis>5%*	3
chronic biliary disease	*Both D DILI and don't say anything chronic in comments 1 likely cholst the other no description cholst*	1 1
lobular hepatitis	cholestasis, bilirubinostasis 1 DILI cholst hep cw fluclox, 1 no evid back liv disease and subtle sin infiltrates	2
cholestasis, bilirubinostasis	cholestasis, bilirubinostasis	2
chronic hepatitis	chronic hepatitis *makes D DILI doesn't describe cholestasis*	1
chronic biliary disease	lobular hepatitis *makes D DILI doesn't comment anything AH does describe cholst*	1
cholestasis,	not applicable	1

bilirubinostasis

79 cholst/bili either alone or in combination (not implying strongly a second pattern or diagnosis) selected or describe it in comment

Stages:	**Popularity:**
no fibrosis/equivocal fibrosis	59.3%
mild/early fibrosis without bridging	26.7%
not applicable / no special stains to assess architecture	10.5%
hepatocyte loss or bridging - favour collapse not fibrosis	1.2%
Other (please specify in Comments)	1.2%

Consensus for no or mild fibrosis

Diagnostic categories:	**Popularity:**
drug induced liver injury (please specify in comments box)	97.7%
- no evidence of diffuse/background liver disease	1.2%
vanishing bile duct syndrome	1.2%

Diagnosis Combination:	**Count:**
drug induced liver injury (please specify in comments box)	84
- no evidence of diffuse/background liver disease	1
vanishing bile duct syndrome	1

Consensus for cholestatic pattern of injury, no or mild fibrosis and DILI specifically Fluclox.

Lose 5 for no choice or description of cholestasis.

Lose 5 for greater than mild fibrosis n=0, not applicable (there was a retic) n=9 or no response n=1 (1 person 'other' says mild in comment) 1 saying favour acute?

Lose 10 for D other than DILI (considers lymphoma)

Lose 5 for VBDSy n=1? Does choose cholestasis pattern but no comment and NA for stage (already lose 5)

Committee – some debate on whether to score for stage, a consensus of members said no or mild fibrosis with an H&E and retic therefore should be scored.

VBDSy and not specifying fluclox lose marks (5)

Original report and further information (if any): Drug induced liver injury- pattern of bland cholestsis with mnimal inflammation

---

Case Number: LX11

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Female 70. Unexplained abnormal LFTs with ? hepatitis B infection. Indeterminate positive hepatitis B, also rheumatoid arthritis, awaiting immunosuppression medication. Liver biopsy to determine cause of liver abnormality and to confirm / exclude liver hepatitis B infection.

Specimen: liver biopsy

Macroscopic: 1 core 18mm long

Immunohistochemistry: retic, CK7, HBsAg

Original Diagnosis: NRH; not features of chronic hepatitis B.

Tumour:	**Popularity:**
- No tumour/lesion present	96.5%
Other (please specify in Comments)	2.3%

Tumour 1:	**Tumour 2:**	**Count:**
- No tumour/lesion present		80
- No tumour/lesion present	- No tumour/lesion present	3
Other (please specify in Comments)		2
	None of these 3 any lesion in comments	1

Pattern:	**Popularity:**
lobular hepatitis	40.7%
vascular disease	31.4%
Other (please specify in Comments)	31.4%
chronic hepatitis	14.0%
chronic biliary disease	5.8%
not applicable	4.7%
within normal limits	1.2%
cholestasis, bilirubinostasis	1.2%
acute venous outflow obstruction	1.2%
abnormal, no pattern discernible	1.2%

Pattern 1:	**Pattern 2:**	**Count:**
lobular hepatitis		16
Other (please specify in Comments)		14
vascular disease		12
lobular hepatitis	Other (please specify in Comments)	9
chronic hepatitis		5
vascular disease	lobular hepatitis	4
vascular disease	chronic hepatitis	3
lobular hepatitis	chronic biliary disease	2
not applicable		2
vascular disease	Other (please specify in Comments)	2
chronic hepatitis	vascular disease	2
lobular hepatitis	vascular disease	2
vascular disease	vascular disease	1
within normal limits	within normal limits	1
chronic biliary disease	chronic biliary disease	1

		1
abnormal, no pattern discernible		1
acute venous outflow obstruction		1
chronic biliary disease		1
chronic biliary disease	chronic hepatitis	1
cholestasis, bilirubinostasis	lobular hepatitis	1
chronic hepatitis	lobular hepatitis	1
Other (please specify in Comments)	not applicable	1
vascular disease	not applicable	1
Other (please specify in Comments)	Other (please specify in Comments)	1

Stages:	**Popularity:**
subtle architectural abnormalities, vascular disease	36.0%
no fibrosis/equivocal fibrosis	24.4%
not applicable / no special stains to assess architecture	11.6%
Other (please specify in Comments)	10.5%
hepatocyte loss or bridging - favour collapse not fibrosis	8.1%
mild/early fibrosis without bridging	8.1%
fibrosis with bridging between vascular structures	1.2%

Diagnostic categories:	**Popularity:**
Other (please enter alternative diagnosis in comments box)	33.7%
manifestation of systemic or extrahepatic disease (please specify in comments box)	30.2%
acute / subacute hepatitis - autoimmune / drug / viral	17.4%
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box)	16.3%
- histologically indeterminate for cause	7.0%
vanishing bile duct syndrome	4.7%
autoimmune hepatitis	3.5%
drug induced liver injury (please specify in comments box)	2.3%
prothrombotic disorder (please specify in comments box)	1.2%
chronic cholangiopathy NOS	1.2%

Diagnosis Combination:	**Count:**
Other (please enter alternative diagnosis in comments box)	20
manifestation of systemic or extrahepatic disease (please specify in comments box)	17
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box)	10
acute / subacute hepatitis - autoimmune / drug / viral	8
- histologically indeterminate for cause	5
manifestation of systemic or extrahepatic disease (please specify in comments box), Other (please enter alternative diagnosis in comments box)	4
acute / subacute hepatitis - autoimmune / drug / viral, Other (please enter alternative diagnosis in comments box)	3
[No selections made]	2
acute / subacute hepatitis - autoimmune / drug / viral, manifestation of systemic or extrahepatic disease (please specify in comments box)	2
autoimmune hepatitis	2
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box), manifestation of systemic or extrahepatic disease (please specify in comments box)	2
drug induced liver injury (please specify in comments box)	2
vanishing bile duct syndrome	2
- histologically indeterminate for cause, Other (please enter alternative diagnosis in	1

comments box)	
acute / subacute hepatitis - autoimmune / drug / viral, chronic viral hepatitis (hepatotrophic viruses - please specify in comments box)	1
acute / subacute hepatitis - autoimmune / drug / viral, vanishing bile duct syndrome	1
autoimmune hepatitis, manifestation of systemic or extrahepatic disease (please specify in comments box)	1
chronic cholangiopathy NOS, vanishing bile duct syndrome	1
chronic viral hepatitis (hepatotrophic viruses - please specify in comments box), Other (please enter alternative diagnosis in comments box)	1
prothrombotic disorder (please specify in comments box)	1

No consensus can't score. 23 no mention NRH in comment some blank (don't imply vascular elsewhere) 63 do mention NRH not quite enough for consensus. Check NRH described under vascular diseases in tissue pathway

Committee – this is a textbook example of NRH should have been recognisable? Valuable education.

Original report and further information (if any): NRH; not features of chronic hepatitis B.

Case Number: LX12 educational

Number of responses: 86. Date of analysis: 31 Oct 2021

Clinical: Male 69. OLTx for HCC (Segment IV) / NAFLD cirrhosis - Explant. ?other lesions.

Specimen: Liver explant

Macroscopic: Liver explant, multiple lesions identified. This lesion relatively well defined necrotic yellow coloured tumour with pale white rim measuring up to 30mm in segment VIII.

Immunohistochemistry: Nil

Original Diagnosis: From EPR - Previous RFA and TACE to some of the liver lesions (not sure whether to include this in the clinical details). This lesion sampled had received RFA. Diagnosis: Ischaemic necrotic lesion with surrounding fibrosis; centrally some residual hepatocytes with nuclear detail, however cells appear withered. Seen in thermal response to the previous RFA treatment. Unlikely to reflect viable tumour therefore considered as showing complete response to treatment. Background established cirrhosis secondary to fatty liver disease with some ballooning suggestive of steatohepatitis. Clinically NAFLD.

Tumour:	**Popularity:**
hepatocellular carcinoma	30.2%
Other (please specify in Comments)	23.3%
hepatocellular carcinoma variant (specify in Comments)	11.6%
angiomyolipoma	5.8%
hepatocellular lesion, well differentiated NOS (please add comment)	2.3%

- No tumour/lesion present	2.3%
focal nodular hyperplasia	2.3%
hepatocellular adenoma NOS	2.3%
hepatocellular adenoma HNFalpha1 inactivated	1.2%

Tumour 1:	Tumour 2:	Count:
hepatocellular carcinoma		24
Other (please specify in Comments)		19
		18
hepatocellular carcinoma variant (specify in Comments)		8
angiomyolipoma		5
focal nodular hyperplasia		2
hepatocellular lesion, well differentiated NOS (please add comment)		2
hepatocellular carcinoma variant (specify in Comments)	hepatocellular carcinoma variant (specify in Comments)	2
hepatocellular adenoma HNFalpha1 inactivated		1
- No tumour/lesion present		1
Other (please specify in Comments)	- No tumour/lesion present	1
hepatocellular adenoma NOS	hepatocellular adenoma NOS	1
hepatocellular adenoma NOS	hepatocellular carcinoma	1
hepatocellular carcinoma	hepatocellular carcinoma	1

Pattern:	Popularity:
steatohepatitis	53.5%
steatosis	10.5%
not applicable	5.8%
Other (please specify in Comments)	2.3%
cholestasis, bilirubinostasis	1.2%
chronic hepatitis	1.2%

Pattern 1:	Pattern 2:	Count:
steatohepatitis		43
		26
steatosis		6
not applicable		3
steatosis	steatohepatitis	2
Other (please specify in Comments)		1
cholestasis, bilirubinostasis		1
chronic hepatitis		1
not applicable	not applicable	1
steatosis	not applicable	1
steatohepatitis	Other (please specify in Comments)	1

Stages:	Popularity:
advanced fibrosis with bridging and nodularity/cirrhosis	67.4%
not applicable / no special stains to assess architecture	4.7%
Other (please specify in Comments)	1.2%

Diagnostic categories:	Popularity:
fatty liver disease - non-alcohol related fatty liver disease	44.2%

fatty liver disease - either alcohol or non-alcohol	8.1%
Other (please enter alternative diagnosis in comments box)	5.8%
- not applicable (insufficient non-lesional tissue)	1.2%

Diagnosis Combination:	**Count:**
fatty liver disease - non-alcohol related fatty liver disease	38
[No selections made]	35
fatty liver disease - either alcohol or non-alcohol	7
Other (please enter alternative diagnosis in comments box)	5
- not applicable (insufficient non-lesional tissue)	1

Original report and further information (if any): From EPR - Previous RFA and TACE to some of the liver lesions (not sure whether to include this in the clinical details). This lesion sampled had received RFA. Diagnosis: Ischaemic necrotic lesion with surrounding fibrosis; centrally some residual hepatocytes with nuclear detail, however cells appear withered. Seen in thermal response to the previous RFA treatment. Unlikely to reflect viable tumour therefore considered as showing complete response to treatment. Background established cirrhosis secondary to fatty liver disease with some ballooning suggestive of steatohepatitis. Clinically NAFLD.

Version: 1.18