

## Appendix 2: Full list of survey questions

### Q1. Do you have local hospital guidelines for assessment of NAFLD?

Please describe your centre according to one of the following categories:

Answer Choices	Responses
District General Hospital, liver services provided by general gastroenterology	30
District General Hospital, liver services delivered by gastroenterologists with an interest in hepatology	50
A specialist centre providing designated hepatology services	67
A liver transplant unit	28
We have local NAFLD guidelines	38

**Q2 How many referrals does your unit receive per year from for investigation of abnormal LFTs, from Primary Care; Diabetes / metabolic; Rheumatology / Dermatology?**

	From Primary care –	From diabetes / metabolic medicine services –	From rheumatology / dermatology–
<b>&lt;50</b>	5 (5%)	63(64%)	64 (65%)
<b>51-100</b>	14 (13%)	29 (29%)	26 (27%)
<b>101-200</b>	23 (21%)	5 (5%)	6 (6%)
<b>201-300</b>	19 (17%)	0	0
<b>&gt;300</b>	49 (44%)	2 (2%)	2 (2%)
<b>Total Responses</b>	<b>110</b>	<b>99</b>	<b>98</b>
<b>don't know</b>	35	39	40

**Q3 When triaging a referral with abnormal LFTs in your unit with suspected NAFLD, which of the following tests are performed routinely by the referring primary care team or receiving secondary care team?**

	Routinely performed by GP before first hospital visit	Performed routinely by hospital team at or following initial visit in all patients	Performed in selected cases	Not routinely performed in our unit	Total Respondents	Missing / incomplete responses
Body Mass Index	25.86% 30	82.76% 96	7.76% 9	1.72% 2	116	0
Alcohol history	55.17% 64	79.31% 92	1.72% 2	0.86% 1	116	0
Waist circumference	1.16% 1	17.44% 15	29.07% 25	55.81% 48	86	30
GGT	42.59% 46	58.33% 63	9.26% 10	15.74% 17	108	8
AST	33.63% 38	71.68% 81	8.85% 10	4.42% 5	113	3
ALT	70.43% 81	69.57% 80	0.00% 0	0.87% 1	115	1
Ferritin	22.61% 26	87.83% 101	1.74% 2	1.74% 2	115	1
Hepatitis B and C serology	32.76% 38	86.21% 100	3.45% 4	0.00% 0	116	0
Liver auto-antibody screen and immunoglobulins	19.13% 22	91.30% 105	1.74% 2	0.00% 0	115	1
Liver and biliary tree ultrasound scan	37.07% 43	81.03% 94	2.59% 3	0.00% 0	116	0
Fibroscan	0.00% 0	50.88% 58	40.35% 46	8.77% 10	114	2
ELF test or other serum fibrosis marker	2.08% 2	6.25% 6	10.42% 10	83.33% 80	96	20
Fatty Liver Index (FLI) score	1.06% 1	5.32% 5	6.38% 6	89.36% 84	94	22
NAFLD Fibrosis score	6.60% 7	45.28% 48	27.36% 29	27.36% 29	106	10
APRI score	0.00% 0	8.79% 8	19.78% 18	71.43% 65	91	25
FIB-4 score	3.13% 3	19.79% 19	15.63% 15	63.54% 61	95	21
AST / ALT ratio	7.84% 8	57.94% 62	22.43% 24	19.63% 21	107	9
Cytokeratin 18	0.00% 0	3.16% 3	4.21% 4	94.74% 90	95	21

	Routinely performed by GP before first hospital visit	Performed routinely by hospital team at or following initial visit in all patients	Performed in selected cases	Not routinely performed in our unit	Total Respondents	Missing / incomplete responses
(M30 and / or M65)						
Liver biopsy	0.00% 0	6.54% 7	84.11% 90	9.35% 10	107	9
random glucose	24.27% 25	67.96% 70	11.65% 12	7.77% 8	103	13
HbA1C	20.00% 21	60.95% 64	22.86% 24	6.67% 7	105	11
non-fasting lipid profile	17.35% 17	66.33% 65	11.22% 11	13.27% 13	98	18
fasting glucose	11.96% 11	28.26% 26	51.09% 47	14.13% 13	92	24
fasting lipid profile	15.15% 15	32.32% 32	48.48% 48	13.13% 13	99	17
fasting insulin	0.00% 0	2.17% 2	25.00% 23	73.91% 68	92	24

## Q4 In respect to liver biopsy in cases of NAFLD

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
is indicated with intermediate-risk non-invasive risk scores (e.g. ELF, NAFLD Fibrosis score, FIB4 score, AST / ALT ratio)	8.93% 10	38.39% 43	28.57% 32	21.43% 24	2.68% 3
is indicated with high-risk non-invasive risk scores (e.g. ELF, NAFLD Fibrosis score, FIB4 score, AST/ALT ratio)	21.24% 24	31.86% 36	17.70% 20	26.55% 30	2.65% 3
is indicated when other non-invasive tests are unreliable (e.g. Fibroscan with IQR >30%)	16.96% 19	54.46% 61	23.21% 26	4.46% 5	0.89% 1
is indicated with >2 metabolic syndrome features	0.89% 1	7.14% 8	43.75% 49	45.54% 51	2.68% 3
is indicated with >3 metabolic syndrome features	2.70% 3	13.51% 15	37.84% 42	41.44% 46	4.50% 5
is useful to exclude an alternative diagnosis e.g auto-immune liver disease	25.66% 29	58.41% 66	12.39% 14	3.54% 4	0.00% 0
to required to make a diagnosis of NASH	18.02% 20	33.33% 37	13.51% 15	30.63% 34	4.50% 5
is poorly	3.57% 4	20.54% 23	30.36% 34	39.29% 44	6.25% 7

	<b>Strongly agree</b>	<b>Agree</b>	<b>Neither agree nor disagree</b>	<b>Disagree</b>	<b>Strongly disagree</b>
<b>tolerated by patients</b>					
<b>does not alter management of NAFLD</b>	<b>4.46%</b> 5	<b>17.86%</b> 20	<b>25.00%</b> 28	<b>45.54%</b> 51	<b>7.14%</b> 8
<b>is helpful to understand disease progression</b>	<b>8.93%</b> 10	<b>53.57%</b> 60	<b>25.00%</b> 28	<b>11.61%</b> 13	<b>0.89%</b> 1

**Q5. What lifestyle interventions and support do you regularly access for your patients with NAFLD? (tick all that apply)**

<b>Answer Choices</b>	<b>Responses</b>
<b>a multidisciplinary clinic with dieticians and physiotherapy</b>	<b>20.91%</b> 23
<b>direct access to tier 2 weight management (BMI&lt;35)</b>	<b>26.36%</b> 29
<b>direct access to tier 3 weight management services (BMI&gt;35)</b>	<b>22.73%</b> 25
<b>direct access to tier 4 weight management services (BMI&gt;40) including assessment for bariatric surgery</b>	<b>26.36%</b> 29
<b>access to weight management services by referral from GP</b>	<b>56.36%</b> 62
<b>no additional lifestyle intervention support available</b>	

**Q6. What advice do you give NAFLD patients about alcohol consumption?**

<b>Answer Choices</b>	<b>Responses</b>
To always remain completely abstinent from alcohol	<b>20.18%</b> 22
To drink < 14 units per week in those without advanced fibrosis	<b>70.64%</b> 77
Explain that alcohol is calorific and should be moderated to help reduce weight	<b>63.30%</b> 69
There is insufficient evidence to make a recommendation	<b>2.75%</b> 3
I do not routinely advise on safe alcohol consumption	<b>1.83%</b> 2

Total Respondents: 109



**Q7. With respect to interventions in cases of NAFLD / NASH do you recommend and / or prescribe the following:**

	<b>I usually / routinely do this–</b>	<b>I do this occasionally in selected cases–</b>	<b>I never do this–</b>
<b>dietary advice</b>	96.40% 107	3.60% 4	0.00% 0
<b>exercise advice</b>	94.59% 105	5.41% 6	0.00% 0
<b>weight loss target of &gt;5%</b>	47.87% 45	30.85% 29	21.28% 20
<b>weight loss target of &gt;10%</b>	53.40% 55	35.92% 37	10.68% 11
<b>vitamin E</b>	1.83% 2	23.85% 26	74.31% 81
<b>specific insulin sensitisers e.g. pioglitazone, liraglutide</b>	1.83% 2	46.79% 51	51.38% 56
<b>omega-3 supplements</b>	0.00% 0	10.00% 11	90.00% 99
<b>specific lipid lowering therapies</b>	13.51% 15	54.95% 61	31.53% 35
<b>probiotics</b>	0.00% 0	5.50% 6	94.50% 103

**Q8. Who manages features of metabolic syndrome in the patients you see with NAFLD?**

	Specifically managed by you–	you provide advice to GP or other healthcare provider to manage this–	you request GP to manage this–	you don't advise on this–	your centre has a multidisciplinary metabolic service to manage this–
type 2 diabetes e.g. advice on specific treatments and glycaemic control e.g.HbA1c	0.91% 1	40.00% 44	47.27% 52	0.91% 1	10.91% 12
obesity	4.59% 5	46.79% 51	31.19% 34	0.92% 1	16.51% 18
hypertension	0.91% 1	24.55% 27	63.64% 70	2.73% 3	8.18% 9
hyperlipidaemia	1.82% 2	33.64% 37	51.82% 57	1.82% 2	10.91% 12
cardiovascular risk profile e.g. QRISK2 score & statin prescribing	1.83% 2	29.36% 32	54.13% 59	7.34% 8	7.34% 8
obstructive sleep apnoea	0.92% 1	43.12% 47	23.85% 26	20.18% 22	11.93% 13

**Q9. Which of the following imaging modalities are available in your unit?**

	Routinely available and used –	Available, but used for selected cases only including research studies –	Unavailable at our unit –	Don't know –
Transient Elastography (Fibroscan) M Probe	<b>70.37%</b> 76	<b>6.48%</b> 7	<b>20.37%</b> 22	<b>2.78%</b> 3
Transient Elastography (Fibroscan) XL Probe	<b>63.89%</b> 69	<b>6.48%</b> 7	<b>24.07%</b> 26	<b>5.56%</b> 6
Controlled attenuation parameter (CAP)	<b>28.57%</b> 30	<b>4.76%</b> 5	<b>56.19%</b> 59	<b>10.48%</b> 11
Acoustic radiation force impulse (ARFI)	<b>5.61%</b> 6	<b>12.15%</b> 13	<b>71.03%</b> 76	<b>11.21%</b> 12
MRI elastography	<b>0.94%</b> 1	<b>15.09%</b> 16	<b>73.58%</b> 78	<b>10.38%</b> 11
Magnetic Resonance Imaging estimated proton density fat fraction (MRI-PDFF)	<b>0.93%</b> 1	<b>14.95%</b> 16	<b>68.22%</b> 73	<b>15.89%</b> 17
Magnetic Resonance Spectroscopy – proton density fat fraction (MRS-PDFF)	<b>0.93%</b> 1	<b>14.81%</b> 16	<b>68.52%</b> 74	<b>15.74%</b> 17

**Q10. Please describe to what extent the following factors influence your decision to follow up or discharge a patient with NAFLD from your clinic.**

	Strongly favours ongoing follow up	Favours ongoing follow up	Neutral	Favours discharge to primary care	Strongly favours discharge to primary care
A child or young person with evidence of NAFLD	22.43% 24	45.79% 49	16.82% 18	14.95% 16	0.00% 0
The presence of Type 2 diabetes	7.55% 8	34.91% 37	47.17% 50	10.38% 11	0.00% 0
South Asian ethnicity	1.89% 2	31.13% 33	57.55% 61	9.43% 10	0.00% 0
Low risk non-invasive investigations for advanced fibrosis	1.85% 2	2.78% 3	9.26% 10	61.11% 66	25.00% 27
Intermediate risk non-invasive investigations for advanced fibrosis	7.55% 8	52.83% 56	25.47% 27	14.15% 15	0.00% 0
High risk non-invasive investigations for advanced fibrosis	51.85% 56	40.74% 44	2.78% 3	3.70% 4	0.93% 1
Current pressures on clinic capacity	2.83% 3	7.55% 8	51.89% 55	33.02% 35	4.72% 5
Individual is unlikely or unable to lose weight	0.00% 0	18.87% 20	54.72% 58	24.53% 26	1.89% 2
Liver biopsy showing simple / bland steatosis without inflammation, ballooning or fibrosis	0.93% 1	8.33% 9	9.26% 10	51.85% 56	29.63% 32
Liver biopsy showing NASH (NAS score >4) with early F1 fibrosis	13.33% 14	43.81% 46	17.14% 18	25.71% 27	0.00% 0
Liver biopsy showing NASH with moderate F2 fibrosis	38.68% 41	40.57% 43	8.49% 9	12.26% 13	0.00% 0
Liver biopsy showing NASH with advanced F3/F4 fibrosis	73.15% 79	25.93% 28	0.93% 1	0.00% 0	0.00% 0
Lack of robust recall guidelines for primary care	5.56% 6	31.48% 34	58.33% 63	2.78% 3	1.85% 2