National Clinical Guidelines Centre

NAFLD

Search strategies appendix

Clinical guideline

Appendices

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Disclaimer
Healthcare professionals are expected to take NICE clinical guidelines fully into account when exercising their clinical judgement. However, the guidance does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of each patient, in consultation with the patient and, where appropriate, their guardian or carer.

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Search strategies used for the non-alcoholic fatty liver disease (NAFLD) guideline are outlined below and were run in accordance with the methodology in the NICE guidelines manual 2012.[1] All searches were run up to **27 August 2015,** unless otherwise stated. Any studies added to the databases after this date (even those published prior to this date) were not included unless specifically stated in the text. We do not routinely search for electronic, ahead of print or 'online early' publications. Where possible searches were limited to retrieve material published in English.

Table 1:   Database date parameters

Database	Dates searched
Medline	1946 – 27 August 2015
Embase	1974 – 27 August 2015
The Cochrane Library	Cochrane Reviews to 2015 Issue 8 of 12 CENTRAL to 2015 Issue 8 of 12 DARE, HTA and NHSEED to 2015 Issue 2 of 4
AMED	1985 – 27 August 2015
CINAHL	1981 – 27 August 2015
PsycINFO	1967 – 27 August 2015

Table 2:   Databases searched

Question	Question number	Databases
Alcohol	A.4.10	Medline, Embase, Cochrane Library
Assessment tools	A.4.1	Medline, Embase, Cochrane Library
Caffeine	A.4.2	Medline, Embase, Cochrane Library
Diagnosis	A.4.3	Medline, Embase, Cochrane Library
Diet	A.4.12	Medline, Embase, Cochrane Library, AMED, CINAHL
Economic modelling	A.5.3	Medline, Embase, NHS EED, CRD, HEED
Exercise	A.4.4	Medline, Embase, Cochrane Library, AMED, CINAHL
Extra-hepatic conditions	A.4.6	Medline, Embase, Cochrane Library
Fructose	A.4.5	Medline, Embase, Cochrane Library
Health economics	A.5.1	Medline, Embase, NHS EED, CRD
Lifestyle modifications	A.4.7	Medline, Embase, Cochrane Library, AMED, CINAHL, PsycINFO
Monitoring	A.4.8	Medline, Embase, Cochrane Library
Pharmacological	A.4.11	Medline, Embase, Cochrane Library
Quality of life	A.5.2	Medline, Embase, NHS EED, CRD
Risk factors	A.4.9	Medline, Embase, Cochrane Library

Searches for the **clinical reviews** were run in Medline (OVID), Embase (OVID) and the Cochrane Library (Wiley). Additional searches were run in CINAHL (ESBSCO), AMED (OVID) and PsycINFO (OVID & ProQUEST) for some questions (see Table 2).

Searches for **intervention and diagnostic studies** were usually constructed using a PICO format where population (P) terms were combined with Intervention (I) and sometimes Comparison (C) terms. An intervention can be a drug, a procedure or a diagnostic test. Outcomes (O) are rarely used in search strategies for interventions. Search filters were also added to the search where appropriate. Searches for **prognostic studies** were usually constructed combining population terms with prognostic variable terms and sometimes outcomes. Search filters were added to the search where appropriate.

Searches for the **health economic reviews** were run in Medline (OVID), Embase (OVID), the NHS Economic Evaluations Database (NHS EED), the Health Technology Assessment (HTA) database and the Health Economic Evaluation Database (HEED). NHS EED and HTA databases were hosted by the Centre for Research and Dissemination (CRD). The Health Economic Evaluation Database (HEED)

ceased production in 2014 with access ceasing in January 2015. For the final dates of HEED searches, please see individual economic questions. For Medline and Embase, an economic filter (instead of a study type filter) was added to the same clinical search strategy. Searches in CRD and HEED were constructed using population terms only.

A.2 Population search strategies

A.2.1 Standard population strategy

Medline search terms

1.	fatty liver/
2.	non-alcoholic fatty liver disease/
3.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
4.	(nafl* or nash).ti,ab.
5.	or/1-4

Embase search terms

1.	nonalcoholic fatty liver/
2.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
3.	(nafl* or nash).ti,ab.
4.	or/1-3

Cochrane search terms

#1.	[mh ^"fatty liver"]
#2.	MeSH descriptor: [non-alcoholic fatty liver disease] this term only
#3.	(((fatty or fat or steato*) near/3 (liver* or hepat*)) or steatohepat* or (visceral near/2 steato*)):ti,ab
#4.	(nafl* or nash):ti,ab
#5.	{or #1-#4}

CINAHL search terms

S1.	(MH "fatty liver+")
S2.	(((fatty or fat or steato*) n3 (liver* or hepat*)) or steatohepat* or (visceral n2 steato*))
S3.	(nafl* or nash)
S4.	S1 or S2 or S3

AMED search terms

1.	liver disease/
2.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
3.	(nafl* or nash).ti,ab.
4.	or/1-3

A.3 Study filter search terms

A.3.1 Systematic review (SR) search terms

Medline search terms

1.	meta-analysis/
2.	meta-analysis as topic/
3.	(meta analy* or metanaly* or metaanaly*).ti,ab.
4.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
5.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
6.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
7.	(search* adj4 literature).ab.
8.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
9.	cochrane.jw.
10.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
11.	or/1-10

Embase search terms

1.	systematic review/
2.	meta-analysis/
3.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
4.	((systematic or evidence) adj3 (review* or overview*)).ti,ab.
5.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
6.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
7.	(search* adj4 literature).ab.
8.	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
9.	cochrane.jw.
10.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
11.	or/1-10

A.3.2 Randomised controlled trials (RCT) search terms

Medline search terms

1.	randomized controlled trial.pt.
2.	controlled clinical trial.pt.
3.	randomi#ed.ab.
4.	placebo.ab.
5.	randomly.ab.
6.	clinical trials as topic.sh.
7.	trial.ti.
8.	or/1-7

Embase search terms

1.	random*.ti,ab.
2.	factorial*.ti,ab.
3.	(crossover* or cross over*).ti,ab.
4.	((doubl* or singl*) adj blind*).ti,ab.
5.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
6.	crossover procedure/
7.	double blind procedure/

8.	single blind procedure/
9.	randomized controlled trial/
10.	or/1-9

A.3.3 Observational studies (OBS) search terms

Medline search terms

1.	epidemiologic studies/
2.	exp case control studies/
3.	exp cohort studies/
4.	cross-sectional studies/
5.	case control.ti,ab.
6.	(cohort adj (study or studies or analys*)).ti,ab.
7.	((follow up or observational or uncontrolled or non randomi#ed or nonrandomi#ed or epidemiologic*) adj (study or studies)).ti,ab.
8.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort*)).ti,ab.
9.	or/1-8

Embase search terms

1.	clinical study/
2.	exp case control study/
3.	family study/
4.	longitudinal study/
5.	retrospective study/
6.	prospective study/
7.	cross-sectional study/
8.	cohort analysis/
9.	follow-up/
10.	cohort*.ti,ab.
11.	9 and 10
12.	case control.ti,ab.
13.	(cohort adj (study or studies or analys*)).ti,ab.
14.	((follow up or observational or uncontrolled or non randomi#ed or nonrandomi#ed or epidemiologic*) adj (study or studies)).ti,ab.
15.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort*)).ti,ab.
16.	or/1-8,11-15

A.3.4 Diagnostic (DIAG) search terms

Medline search terms

1.	exp "sensitivity and specificity"/
2.	(sensitivity or specificity).ti,ab.
3.	((pre test or pretest or post test) adj probability).ti,ab.
4.	(predictive value* or ppv or npv).ti,ab.
5.	likelihood ratio*.ti,ab.
6.	likelihood function/

7.	(roc curve* or auc).ti,ab.
8.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
9.	gold standard.ab.
10.	or/1-9

Embase search terms

1.	exp "sensitivity and specificity"/
2.	(sensitivity or specificity).ti,ab.
3.	((pre test or pretest or post test) adj probability).ti,ab.
4.	(predictive value* or ppv or npv).ti,ab.
5.	likelihood ratio*.ti,ab.
6.	(roc curve* or auc).ti,ab.
7.	(diagnos* adj2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
8.	diagnostic accuracy/
9.	diagnostic test accuracy study/
10.	gold standard.ab.
11.	or/ 1-10

A.3.5   Risk (RISK) search terms

Medline search terms

1.	exp risk/
2.	prevalence/
3.	incidence/
4.	(risk* or prevalence* or incidence* or predict* or associat*).ti.
5.	or/ 1-4

Embase search terms

1.	exp *risk/
2.	*prevalence/
3.	*incidence/
4.	(risk* or prevalence* or incidence* or predict* or associat*).ti,ab.
5.	or/1-4

A.3.6   Health economics (HE) search terms

Medline search terms

1.	economics/
2.	value of life/
3.	exp "costs and cost analysis"/
4.	exp economics, hospital/
5.	exp economics, medical/
6.	economics, nursing/
7.	economics, pharmaceutical/
8.	exp "fees and charges"/
9.	exp budgets/

10.	budget*.ti,ab.
11.	cost*.ti.
12.	(economic* or pharmaco?economic*).ti.
13.	(price* or pricing*).ti,ab.
14.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
15.	(financ* or fee or fees).ti,ab.
16.	(value adj2 (money or monetary)).ti,ab.
17.	or/1-16

Embase search terms

1.	health economics/
2.	exp economic evaluation/
3.	exp health care cost/
4.	exp fee/
5.	budget/
6.	funding/
7.	budget*.ti,ab.
8.	cost*.ti.
9.	(economic* or pharmaco?economic*).ti.
10.	(price* or pricing*).ti,ab.
11.	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
12.	(financ* or fee or fees).ti,ab.
13.	(value adj2 (money or monetary)).ti,ab.
14.	or/1-13

A.3.7 Quality of life (QoL) search terms

Medline search terms

1.	quality-adjusted life years/
2.	sickness impact profile/
3.	(quality adj2 (wellbeing or well-being)).ti,ab.
4.	sickness impact profile.ti,ab.
5.	disability adjusted life.ti,ab.
6.	(qal* or qtime* or qwb* or daly*).ti,ab.
7.	(euroqol* or eq5d* or eq 5d*).ti,ab.
8.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
9.	(health utility* or utility score* or disutilit*).ti,ab.
10.	(hui or hui1 or hui2 or hui3).ti,ab.
11.	health* year* equivalent*.ti,ab.
12.	(hye or hyes).ti,ab.
13.	rosser.ti,ab.
14.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
15.	(sf36 or sf 36 or short form 36 or shortform 36 or shortform36).ti,ab.
16.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
17.	(sf12 or sf 12 or short form 12 or shortform 12 or shortform12).ti,ab.
18.	(sf8 or sf 8 or short form 8 or shortform 8 or shortform8).ti,ab.

| 19. | (sf6 or sf 6 or short form 6 or shortform 6 or shortform6).ti,ab. |
| 20. | or/1-19 |

Embase search terms

1.	quality adjusted life year/
2.	"quality of life index"/
3.	short form 12/ or short form 20/ or short form 36/ or short form 8/
4.	sickness impact profile/
5.	(quality adj2 (wellbeing or well-being)).ti,ab.
6.	sickness impact profile.ti,ab.
7.	disability adjusted life.ti,ab.
8.	(qal* or qtime* or qwb* or daly*).ti,ab.
9.	(euroqol* or eq5d* or eq 5d*).ti,ab.
10.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
11.	(health utility* or utility score* or disutilit*).ti,ab.
12.	(hui or hui1 or hui2 or hui3).ti,ab.
13.	health* year* equivalent*.ti,ab.
14.	(hye or hyes).ti,ab.
15.	rosser.ti,ab.
16.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
17.	(sf36 or sf 36 or short form 36 or shortform 36 or shortform36).ti,ab.
18.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
19.	(sf12 or sf 12 or short form 12 or shortform 12 or shortform12).ti,ab.
20.	(sf8 or sf 8 or short form 8 or shortform 8 or shortform8).ti,ab.
21.	(sf6 or sf 6 or short form 6 or shortform 6 or shortform6).ti,ab.
22.	or/1-21

A.3.8   Economic modelling (MOD) search terms

Medline search terms

1.	exp models, economic/
2.	*models, theoretical/
3.	*models, organizational/
4.	markov chains/
5.	monte carlo method/
6.	exp decision theory/
7.	(markov* or monte carlo).ti,ab.
8.	econom* model*.ti,ab.
9.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
10.	or/ 1-9

Embase search terms

1.	statistical model/
2.	exp economic aspect/
3.	1 and 2
4.	*theoretical model/
5.	*nonbiological model/

6.	stochastic model/
7.	decision theory/
8.	decision tree/
9.	monte carlo method/
10.	(markov* or monte carlo).ti,ab.
11.	econom* model*.ti,ab.
12.	(decision* adj2 (tree* or analy* or model*)).ti,ab.
13.	or/3-12

A.3.9 Excluded study designs and publication types

The following study designs and publication types were removed from retrieved results using the NOT operator.

Medline search terms

1.	letter/
2.	editorial/
3.	news/
4.	exp historical article/
5.	anecdotes as topic/
6.	comment/
7.	case report/
8.	(letter or comment*).ti.
9.	or/1-8
10.	randomized controlled trial/ or random*.ti,ab.
11.	9 not 10
12.	animals/ not humans/
13.	exp animals, laboratory/
14.	exp animal experimentation/
15.	exp models, animal/
16.	exp rodentia/
17.	(rat or rats or mouse or mice).ti.
18.	or/11-17

Embase search terms

1.	letter.pt. or letter/
2.	note.pt.
3.	editorial.pt.
4.	case report/ or case study/
5.	(letter or comment*).ti.
6.	or/1-5
7.	randomized controlled trial/ or random*.ti,ab.
8.	6 not 7
9.	animal/ not human/
10.	nonhuman/
11.	exp animal experiment/
12.	exp experimental animal/

13.	animal model/
14.	exp rodent/
15.	(rat or rats or mouse or mice).ti.
16.	or/8-15

CINAHL search terms

S1.	PT anecdote or PT audiovisual or PT bibliography or PT biography or PT book or PT book review or PT brief item or PT cartoon or PT commentary or PT computer program or PT editorial or PT games or PT glossary or PT historical material or PT interview or PT letter or PT listservs or PT masters thesis or PT obituary or PT pamphlet or PT pamphlet chapter or PT pictorial or PT poetry or PT proceedings or PT "questions and answers" or PT response or PT software or PT teaching materials or PT website

A.4 Searches for specific questions

A.4.1 Assessment tools

- Which assessment tool is most accurate in identifying the severity or stage of NAFLD?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	biological markers/
6.	alanine transaminase/
7.	exp aspartate aminotransferases/
8.	keratin-18/
9.	ferritin/
10.	or/5-9
11.	(test* or measure* or level* or diagnos* or ratio or score*).ti,ab.
12.	10 and 11
13.	(fibro test* or fibro-test* or fibrometer or fibroscan or fib4 or fib-4).ti,ab.
14.	((nafld or bard or ferritin* or fibrosis) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
15.	((glutamic-pyruvic transaminase or glutamic-oxaloacetic transaminase or sgot or sgpt or alt or ast) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
16.	(aspartate adj2 (aminotransferase or apoaminotransferase or transaminase) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
17.	(alanine adj2 (aminotransferase or transaminase) adj4 (test* or measure* or level * or ratio or score*)).ti,ab.
18.	((ast-to-platelet ratio index or apri or elf or enhanced liver fibrosis or nash) adj4 (test* or measure* or level* or score*)).ti,ab.
19.	((biomarker* or marker*) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
20.	exp magnetic resonance spectroscopy/
21.	exp diffusion magnetic resonance imaging/
22.	(elastogra* or sonoelastogra* or elasticity imag* or sheer wave).ti,ab.
23.	(acoustic radiation force impulse or arfi).ti,ab.

24.	((diffusion or weighted) adj2 (imag* or mri)).ti,ab.
25.	(mrs or ((nmr or magnetic or mr) adj2 spectroscop*)).ti,ab.
26.	or/12-25
27.	4 and 26
28.	Study filters OBS (A.3.3) or DIAG (A.3.4)
29.	27 and 28
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	biological marker/
6.	alanine aminotransferase/
7.	exp aspartate aminotransferases/
8.	cytokeratin 18/
9.	ferritin/
10.	or/5-9
11.	(test* or measure* or level* or diagnos* or ratio or score*).ti,ab.
12.	10 and 11
13.	(fibro test* or fibro-test* or fibrometer or fibroscan or fib4 or fib-4).ti,ab.
14.	((nafld or bard or ferritin* or fibrosis) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
15.	((glutamic-pyruvic transaminase or glutamic-oxaloacetic transaminase or sgot or sgpt or alt or ast) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
16.	(aspartate adj2 (aminotransferase or apoaminotransferase or transaminase) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
17.	(alanine adj2 (aminotransferase or transaminase) adj4 (test* or measure* or level * or ratio or score*)).ti,ab.
18.	((ast-to-platelet ratio index or apri or elf or enhanced liver fibrosis or nash) adj4 (test* or measure* or level* or score*)).ti,ab.
19.	((biomarker* or marker*) adj4 (test* or measure* or level* or ratio or score*)).ti,ab.
20.	exp nuclear magnetic resonance spectroscopy/
21.	exp diffusion weighted imaging/
22.	(elastogra* or sonoelastogra* or elasticity imag* or sheer wave).ti,ab.
23.	(acoustic radiation force impulse or arfi).ti,ab.
24.	((diffusion or weighted) adj2 (imag* or mri)).ti,ab.
25.	(mrs or ((nmr or magnetic or mr) adj2 spectroscop*)).ti,ab.
26.	or/12-25
27.	4 and 26
28.	Study filters OBS (A.3.3) or DIAG (A.3.4)
29.	27 and 28
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)

#2.	MeSH descriptor: [biological markers] this term only
#3.	MeSH descriptor: [alanine transaminase] this term only
#4.	MeSH descriptor: [aspartate aminotransferases] explode all trees
#5.	MeSH descriptor: [keratin-18] this term only
#6.	MeSH descriptor: [ferritins] this term only
#7.	{or #2-#6}
#8.	(test* or measure* or level* or ratio or diagnos* or score*):ti,ab
#9.	#7 and #8
#10.	(fibro test* or fibro-test* or fibrometer or fibroscan or fib4 or fib-4):ti,ab
#11.	((nafld or bard or ferritin* or fibrosis) near/4 (test* or measure* or level* or ratio or score*)):ti,ab
#12.	((glutamic-pyruvic transaminase or glutamic-oxaloacetic transaminase or sgot or sgpt or alt or ast) near/4 (test* or measure* or level* or ratio or score*)):ti,ab
#13.	(aspartate near/2 (aminotransferase or apoaminotransferase or transaminase) near/4 (test* or measure* or level* or ratio or score*)):ti,ab
#14.	(alanine near/2 (aminotransferase or transaminase) near/4 (test* or measure* or level * or ratio or score*)):ti,ab
#15.	((ast-to-platelet ratio index or apri or elf or enhanced liver fibrosis or nash) near/4 (test* or measure* or level* or score*)):ti,ab
#16.	((biomarker* or marker*) near/4 (test* or measure* or level* or ratio or score*)):ti,ab
#17.	MeSH descriptor: [magnetic resonance spectroscopy] explode all trees
#18.	MeSH descriptor: [diffusion magnetic resonance imaging] explode all trees
#19.	(elastogra* or sonoelastogra* or elasticity imag* or sheer wave):ti,ab
#20.	(acoustic radiation force impulse or arfi):ti,ab
#21.	((diffusion or weighted) near/2 (imag* or mri)):ti,ab
#22.	(mrs or ((nmr or magnetic or mr) near/2 spectroscop*)):ti,ab
#23.	{or #9-#22}
#24.	#7 and #23
#25.	#1 and #24
	See Table 1 for date parameters

A.4.2   Caffeine

- Should people with NAFLD modify their consumption of caffeine from coffee?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	exp caffeine/
5.	coffee/
6.	(caffeine or coffee).ti,ab.
7.	or/ 4-6
8.	3 and 7
9.	Limit 8 to English language
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	*caffeine/
5.	*coffee/
6.	(caffeine or coffee).ti,ab.
7.	or/ 4-6
8.	3 and 7
9.	Limit 8 to English language
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh caffeine]
#3.	[mh ^coffee]
#4.	(caffeine or coffee):ti,ab
#5.	{or #2-#4}
#6.	#1 and #5
	See Table 1 for date parameters

A.4.3 Diagnosis

- What is (are) the appropriate investigation(s) for diagnosing NAFLD in adults, young people and children?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	alanine transaminase/
6.	aspartate aminotransferases/
7.	gamma-glutamyltransferase/
8.	(test* or measure* or level* or ratio*).ti,ab.
9.	or/5-7
10.	8 and 9
11.	((alanine transaminase* or alt or aspartate aminotransferase* or ast or gamma glutamyltransferase* or gamma gt or gammagt or ggt) adj4 (test* or measure* or level* or ratio*)).ti,ab.
12.	(fatty liver ind* or fli).ti,ab.
13.	(steatotest or steato test).ti,ab.
14.	liver fat scor*.ti,ab.
15.	ultrasonography/ or exp ultrasonography, doppler/
16.	(ultrasound* or ultrason* or sonograph* or echograph*).ti,ab.
17.	magnetic resonance imaging/
18.	magnetic resonance spectroscopy/

19.	(mri or mrs or ((magnetic or mr) adj2 (imag* or spectroscop*))).ti,ab.
20.	controlled attenuation parameter.ti,ab.
21.	elasticity imaging techniques/
22.	alanine transaminase/
23.	or/ 10-22
24.	4 and 23
25.	Study filters SR (A.3.1) or DIAG (A.3.4)
26.	24 and 25
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	*alanine aminotransferase/
6.	*aspartate aminotransferase/
7.	*gamma glutamyltransferase/
8.	or/ 5-7
9.	(test* or measure* or level* or ratio*).ti,ab.
10.	8 and 9
11.	((alanine transaminase* or alt or aspartate aminotransferase* or ast or gamma glutamyltransferase* or gamma gt or gammagt or ggt) adj4 (test* or measure* or level* or ratio*)).ti,ab.
12.	(fatty liver ind* or fli).ti,ab.
13.	(steatotest or steato test).ti,ab.
14.	liver fat scor*.ti,ab.
15.	*echography/ or *doppler echography/
16.	(ultrasound* or ultrason* or sonograph* or echograph*).ti,ab.
17.	*nuclear magnetic resonance imaging/
18.	*nuclear magnetic resonance spectroscopy/
19.	(mri or mrs or ((magnetic or mr) adj2 (imag* or spectroscop*))).ti,ab.
20.	controlled attenuation parameter.ti,ab.
21.	*elastography/
22.	or/ 10-21
23.	4 and 22
24.	Study filters SR (A.3.1) or DIAG (A.3.4)
25.	23 and 24
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh ^"alanine transaminase"]
#3.	[mh ^"aspartate aminotransferases"]
#4.	[mh ^gamma-glutamyltransferase]
#5.	{or #2-#4}

#6.	(test* or measure* or level* or ratio*):ti,ab
#7.	#5 and #6
#8.	((alanine next transaminase* or alt or aspartate next aminotransferase* or ast or gamma next glutamyltransferase* or gamma next gt or gammagt or ggt) near/4 (test* or measure* or level* or ratio*)):ti,ab
#9.	(fatty next liver next ind* or fli):ti,ab
#10.	(steatotest or steato next test):ti,ab
#11.	liver next fat next scor*:ti,ab
#12.	[mh ^ultrasonography]
#13.	[mh "ultrasonography, doppler"]
#14.	(ultrasound* or ultrason* or sonograph* or echograph*):ti,ab
#15.	[mh ^"magnetic resonance imaging"]
#16.	[mh ^"magnetic resonance spectroscopy"]
#17.	(mri or mrs or ((magnetic or mr) near/2 (imag* or spectroscop*))):ti,ab
#18.	controlled attenuation parameter:ti,ab
#19.	[mh ^"elasticity imaging techniques"]
#20.	{or #7-#19}
#21.	#1 and #20
	See Table 1 for date parameters

A.4.4 Exercise

- What is the clinical and cost effectiveness of exercise programmes for adults, young people and children with NAFLD compared with standard care?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp Exercise/
6.	exp Exercise Therapy/
7.	Sedentary Lifestyle/
8.	exercise*.ti,ab.
9.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
10.	(anaerobic* or aerobic*).ti,ab.
11.	(HIIT or (interval* adj2 train*)).ti,ab.
12.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
13.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
14.	or/5-13
15.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
16.	4 and 14
17.	15 and 16
	See Table 1 for date parameters

AMED search terms

1.	Standard population (A.2)

2.	Limit 1 to English language
3.	exp exercise/ or exp physical fitness/
4.	exp exercise therapy/
5.	sedentary lifestyle/
6.	exercise*.ti,ab.
7.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
8.	(anaerobic* or aerobic*).ti,ab.
9.	(hiit or (interval* adj2 train*)).ti,ab.
10.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
11.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
12.	or/3-11
13.	2 and 12
	See Table 1 for date parameters

CINAHL search terms

S1.	Standard population (A.2)
S2.	Excluded study designs and publication types (A.3.9)
S3.	1 not 2
S4.	Limit 3 to English language
S5.	(MH "exercise+") or (MH "physical activity") or (MH "therapeutic exercise+") or (MH "life style, sedentary")
S6.	exercise*
S7.	((resist* or strength or weight or intens* or fitness) n2 (train* or program* or therap*))
S8.	anaerobic* or aerobic*
S9.	hiit or interval* n2 train*
S10.	(physical* n2 (activit* or exert* or fit or fitness or train* or therap*))
S11.	(sedentary or ((sit or sitting) n3 time))
S12.	S5 or S6 or S7 or S8 or S9 or S10 or S11
S13.	S4 and S12
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp *exercise/
6.	exp *kinesiotherapy/
7.	*sedentary lifestyle/
8.	exp *physical activity/
9.	exercise*.ti,ab.
10.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
11.	(anaerobic* or aerobic*).ti,ab.
12.	(hiit or (interval* adj2 train*)).ti,ab.
13.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
14.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.

15.	or/ 5-14
16.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
17.	4 and 15
18.	16 and 17
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh exercise]
#3.	[mh "exercise therapy"]
#4.	[mh ^"sedentary lifestyle"]
#5.	exercise*:ti,ab
#6.	((resist* or strength or weight or intens* or fitness) near/2 (train* or program* or therap*)):ti,ab
#7.	(anaerobic* or aerobic*):ti,ab
#8.	(hiit or (interval* near/2 train*)):ti,ab
#9.	(physical* near/2 (activit* or exert* or fit or fitness or train* or therap*)):ti,ab
#10.	(sedentary or ((sit or sitting) near/3 time)):ti,ab
#11.	{or #2-#10}
#12.	#1 and #11
	See Table 1 for date parameters

A.4.5 Fructose

- Should people with NAFLD restrict their consumption of fructose or sugar?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	fructose/
6.	(fructose or sugar* or levulos* or agave nectar or honey or molasses or fruit*).ti,ab.
7.	dietary sucrose/
8.	sucrose/
9.	(saccharose or sucrose).ti,ab.
10.	high fructose corn syrup/
11.	(((corn or maize or maple) adj1 syrup) or hfcs or isoglucose).ti,ab.
12.	or/ 5-11
13.	4 and 12
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2

4.	Limit 3 to English language
5.	fructose/
6.	(fructose or sugar* or levulos* or agave nectar or honey or molasses or fruit*).ti,ab.
7.	sucrose/
8.	sugar intake/
9.	(saccharose or sucrose).ti,ab.
10.	corn syrup/
11.	(((corn or maize or maple) adj1 syrup) or hfcs or isoglucose).ti,ab.
12.	or/ 5-11
13.	4 and 12
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	MeSH descriptor: [fructose] this term only
#3.	(fructose or sugar* or levulos* or agave nectar or honey or molasses or fruit*):ti,ab
#4.	MeSH descriptor: [dietary sucrose] this term only
#5.	MeSH descriptor: [sucrose] this term only
#6.	(saccharose or sucrose):ti,ab
#7.	MeSH descriptor: [high fructose corn syrup] this term only
#8.	(((corn or maize or maple) next syrup) or hfcs or isoglucose):ti,ab
#9.	{or #2-#8}
#10.	#1 and #9
	See Table 1 for date parameters

A.4.6   Extra-hepatic conditions

- Should a diagnosis of NAFLD in adults, young people and children prompt assessment for additional extra-hepatic conditions and, if so, which?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp cardiovascular disease/
6.	((cardiovascular or aortic or heart or coronary artery or peripheral arterial) adj disease*).ti.
7.	(pad or cad or cvd or cva).ti.
8.	(myocardial infarct* or mi).ti.
9.	(hypertens* or high blood pressure*).ti.
10.	((cereb* or cardiovascular or haemorrhagic) adj stroke).ti.
11.	(tia or transient ischemic attack* or cerebral* ischemia*).ti.
12.	exp diabetes mellitus, type 2/
13.	(diabet* adj2 (type 2 or type2 or type ii or type two)).ti.
14.	(dm2 or t2d*).ti.

15.	(diabet* adj2 (noninsulin or non insulin or slow-onset or slow onset or adult-onset or adult onset)).ti.
16.	dyslipidemias/
17.	hyperlipidemias/
18.	(dyslipidemia* or dyslipidaemia*).ti.
19.	(hyperlipidemia* or hyperlipidaemia*).ti.
20.	hypercholesterolemia/
21.	(hypercholesterolemia or elevated cholesterol).ti.
22.	hypertriglyceridemia/
23.	(hypertriglyceridemia* or hypertriglyceridaemia*).ti.
24.	exp neoplasms/
25.	(cancer* or adenocarcinoma* or neoplasm* or tumor* or carcinoma* or myeloma*).ti.
26.	((primary or secondary) adj cancer).ti.
27.	((breast or uterus or uterine or ovarian or ovary or womb or prostate or endometrial) adj3 cancer).ti.
28.	((oesophageal or oesophagus or colorectal or colon or bowel or liver or gallbladder or pancreatic or kidney or stomach or gullet) adj3 cancer).ti.
29.	((non-hodgkin* or non hodgkin*) adj lymphoma*).ti.
30.	(lymphoma* or sarcoma* or heptoblastoma or neuroendocrine tumor).ti.
	(adenocarcinoma* adj1 (papillary or non-papillary or non papillary)).ti.
31.	(carcinoma* adj1 (b-cell or t-cell or b cell or t cell or squamous cell)).ti.
32.	(myeloma* or multiple myeloma* or myelomatosis).ti.
33.	vitamin d/
34.	(vitamin d or vit d).ti.
35.	chronic kidney disease/
36.	(chronic kidney disease or ckd).ti.
37.	polycystic ovary syndrome/
38.	(pcos or polycystic ovary syndrome).ti.
39.	exp sleep apnea syndromes/
40.	(sleep apnea syndrome or sleep apnoea syndrome or obstructive sleep apnoea sydrome or osas or osahs or osah).ti.
41.	obesity/
42.	(obesity or obese or bmi or body mass index).ti.
43.	metabolic syndrome x/
44.	(metabolic adj1 syndrom*).ti.
45.	((extra-hepatic or extrahepatic or extra hepatic) adj2 (disease* or condition*)).ti.
46.	(liver adj2 (related complication* or increas* risk or associate* risk)).ti,ab.
47.	or/ 5-46
48.	Study filters OBS (A.3.3) or RISK (A.3.5)
49.	4 and 47
50.	48 and 49
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)

2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp cardiovascular disease/
6.	((cardiovascular or aortic or heart or coronary artery or peripheral arterial) adj disease*).ti.
7.	(pad or cad or cvd or cva).ti.
8.	(myocardial infarct* or mi).ti.
9.	(hypertens* or high blood pressure*).ti.
10.	((cereb* or cardiovascular or haemorrhagic) adj stroke).ti.
11.	(tia or transient ischemic attack* or cerebral* ischemia*).ti.
12.	exp non insulin dependent diabetes mellitus/
13.	(diabet* adj2 (type 2 or type2 or type ii or type two)).ti.
14.	(dm2 or t2d*).ti.
15.	(diabet* adj2 (noninsulin or non insulin or slow-onset or slow onset or adult-onset or adult onset)).ti.
16.	dyslipidemia/
17.	hyperlipidemia/
18.	(dyslipidemia* or dyslipidaemia*).ti.
19.	(hyperlipidemia* or hyperlipidaemia*).ti.
20.	hypercholesterolemia/
21.	(hypercholesterolemia or elevated cholesterol).ti.
22.	hypertriglyceridemia/
23.	(hypertriglyceridemia* or hypertriglyceridaemia*).ti.
24.	exp neoplasm/
25.	(cancer* or adenocarcinoma* or neoplasm* or tumor* or carcinoma* or myeloma*).ti.
26.	((primary or secondary) adj cancer).ti.
27.	((breast or uterus or uterine or ovarian or ovary or womb or prostate or endometrial) adj3 cancer).ti.
28.	((oesophageal or oesophagus or colorectal or colon or bowel or liver or gallbladder or pancreatic or kidney or stomach or gullet) adj3 cancer).ti.
29.	((non-hodgkin* or non hodgkin*) adj lymphoma*).ti.
30.	(lymphoma* or sarcoma* or heptoblastoma or neuroendocrine tumor).ti.
31.	(adenocarcinoma* adj1 (papillary or non-papillary or non papillary)).ti.
32.	(carcinoma* adj1 (b-cell or t-cell or b cell or t cell or squamous cell)).ti.
33.	(myeloma* or multiple myeloma* or myelomatosis).ti.
34.	vitamin d/
35.	(vitamin d or vit d).ti.
36.	chronic kidney disease/
37.	(chronic kidney disease or ckd).ti.
38.	ovary polycystic disease/
39.	(pcos or polycystic ovary syndrome).ti.
40.	exp sleep disordered breathing/
41.	(sleep disordered breathing or sleep apnea syndrome or sleep apnoea syndrome or obstructive sleep apnoea sydrome or osas or osahs or osah).ti.
42.	obesity/
43.	(obesity or obese or bmi or body mass index).ti.

44.	metabolic syndrome x/
45.	(metabolic adj1 syndrom*).ti.
46.	((extra-hepatic or extrahepatic or extra hepatic) adj2 (disease* or condition*)).ti.
47.	(liver adj2 (related complication* or increas* risk or associate* risk)).ti,ab.
48.	or/ 5-47
49.	Study filters OBS (A.3.3) or RISK (A.3.5)
50.	4 and 48
51.	49 and 50
52.	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	MeSH descriptor: [cardiovascular diseases] explode all trees
#3.	((cardiovascular or aortic or heart or coronary artery or peripheral arterial) next (disease*)):ti
#4.	(pad or cad or cvd or cva):ti
#5.	(myocardial infarct* or mi):ti
#6.	(hypertens* or high blood pressure*):ti
#7.	((cereb* or cardiovascular or haemorrhagic) next (stroke)):ti
#8.	(tia or transient ischemic attack* or cerebral* ischemia*):ti
#9.	MeSH descriptor: [diabetes mellitus, type 2] explode all trees
#10.	(diabet* near/2 (type 2 or type2 or type ii or type two)):ti
#11.	(dm2 or t2d*):ti
#12.	(diabet* near/2 (noninsulin or non insulin or slow-onset or slow onset or adult-onset or adult onset)):ti
#13.	MeSH descriptor: [dyslipidemias] explode all trees
#14.	MeSH descriptor: [hyperlipidemias] explode all trees
#15.	(dyslipidemia* or dyslipidaemia*):ti
#16.	(hyperlipidemia* or hyperlipidaemia*):ti
#17.	MeSH descriptor: [hypercholesterolemia] explode all trees
#18.	(hypercholesterolemia or elevated cholesterol):ti
#19.	MeSH descriptor: [hypertriglyceridemia] explode all trees
#20.	(hypertriglyceridemia* or hypertriglyceridaemia*):ti
#21.	MeSH descriptor: [neoplasms] explode all trees
#22.	(cancer* or adenocarcinoma* or neoplasm* or tumor* or carcinoma* or myeloma*):ti
#23.	((primary or secondary) next (cancer)):ti
#24.	((breast or uterus or uterine or ovarian or ovary or womb or prostate or endometrial) near/3 cancer):ti
#25.	((oesophageal or oesophagus or colorectal or colon or bowel or liver or gallbladder or pancreatic or kidney or stomach or gullet) near/3 cancer):ti
#26.	((non-hodgkin* or non hodgkin*) next (lymphoma*)):ti
#27.	(lymphoma* or sarcoma* or heptoblastoma or neuroendocrine tumor):ti
#28.	(adenocarcinoma* near/1 (papillary or non-papillary or non papillary)):ti
#29.	(carcinoma* near/1 (b-cell or t-cell or b cell or t cell or squamous cell)):ti
#30.	(myeloma* or multiple myeloma* or myelomatosis):ti
#31.	MeSH descriptor: [vitamin d] this term only

#32.	(vitamin d or vit d):ti
#33.	MeSH descriptor: [renal insufficiency, chronic] this term only
#34.	(chronic kidney disease or ckd):ti
#35.	MeSH descriptor: [polycystic ovary syndrome] this term only
#36.	(pcos or polycystic ovary syndrome):ti
#37.	MeSH descriptor: [sleep apnea syndromes] explode all trees
#38.	(sleep apnea syndrome or sleep apnoea syndrome or obstructive sleep apnoea sydrome or osas or osahs or osah):ti
#39.	MeSH descriptor: [obesity] explode all trees
#40.	(obesity or obese or bmi or body mass index):ti
#41.	MeSH descriptor: [metabolic syndrome x] this term only
#42.	(metabolic near/1 syndrom*):ti
#43.	((extra-hepatic or extrahepatic or extra hepatic) near/2 (disease* or condition*)):ti
#44.	(liver near/2 (related complication* or increas* risk or associate* risk)):ti,ab
#45.	{or #2-#44}
#46.	#1 and #45
#47.	MeSH descriptor: [risk] explode all trees
#48.	MeSH descriptor: [prevalence] this term only
#49.	MeSH descriptor: [incidence] this term only
#50.	(risk* or prevalence* or incidence* or predict* or associat*):ti,ab
#51.	{or #47-#50}
#52.	#46 and #51
	See Table 1 for date parameters

A.4.7 Lifestyle modifications

- What is the clinical and cost effectiveness of lifestyle modification programmes for diet and exercise interventions for adults, young people and children with NAFLD compared with diet alone, exercise alone or standard care?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp diet/
6.	weight loss/
7.	exp diet therapy/
8.	diet*.ti,ab.
9.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.
10.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
11.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
12.	((high* or percent*) adj3 protein*).ti,ab.
13.	or/5-12
14.	exp exercise/
15.	exp exercise therapy/
16.	sedentary lifestyle/

17.	exercise*.ti,ab.
18.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
19.	(anaerobic* or aerobic*).ti,ab.
20.	(hiit or (interval* adj2 train*)).ti,ab.
21.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
22.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
23.	or/14-22
24.	counseling/
25.	exp behavior therapy/
26.	motivation/
27.	social support/
28.	exp psychotherapy/
29.	managed care programs/
30.	self care/
31.	(cbt or (cognit* adj2 therap*) or (behav* adj1 therap*)).ti,ab.
32.	(mbt or (mentali#ation adj based adj1 therap*)).ti,ab.
33.	(feedback or biofeedback).ti,ab.
34.	((behav* or lifestyle or life-style) adj3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)).ti,ab.
35.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) adj2 program*).ti,ab.
36.	(psycholog* or council* or counsel* or psychotherap* or psychosocial).ti,ab.
37.	((support* or advice or advise) adj3 (telephone* or internet or online or web or app or apps or program* or group*)).ti,ab.
38.	(psychotherap* or psychosocial*).ti,ab.
39.	(psycholog* adj2 intervent*).ti,ab.
40.	(self adj3 (manage* or care or motivat*)).ti,ab.
41.	(henry or motivat* or educat*).ti,ab.
42.	((famil* or parent*) adj2 (therap* or program*)).ti,ab.
43.	or/24-42
44.	13 and 23
45.	43 and (13 or 23)
46.	44 or 45
47.	4 and 46
48.	Study filters SR (A.3.1) or RCT (A.3.2)
49.	47 and 48
	See Table 1 for date parameters

AMED search terms

1.	Standard population (A.2)
2.	Limit 1 to English language
3.	exp diet/
4.	exp diet therapy/
5.	weight loss/
6.	diet*.ti,ab.
7.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.

8.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
9.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
10.	((high* or percent*) adj3 protein*).ti,ab.
11.	or/3-10
12.	exp exercise/ or exp physical fitness/
13.	exp exercise therapy/
14.	sedentary lifestyle/
15.	exercise*.ti,ab.
16.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
17.	(anaerobic* or aerobic*).ti,ab.
18.	(hiit or (interval* adj2 train*)).ti,ab.
19.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
20.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
21.	or/12-20
22.	counseling/
23.	exp psychotherapy/
24.	motivation/
25.	social support/
26.	self care/
27.	(cbt or (cognit* adj2 therap*) or (behav* adj1 therap*)).ti,ab.
28.	(mbt or (mentali#ation adj based adj1 therap*)).ti,ab.
29.	(feedback or biofeedback).ti,ab.
30.	((behav* or lifestyle or life-style) adj3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)).ti,ab.
31.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) adj2 program*).ti,ab.
32.	(psycholog* or council* or counsel* or psychotherap* or psychosocial).ti,ab.
33.	((support* or advice or advise) adj3 (telephone* or internet or online or web or app or apps or program* or group*)).ti,ab.
34.	(psychotherap* or psychosocial*).ti,ab.
35.	(psycholog* adj2 intervent*).ti,ab.
36.	(self adj3 (manage* or care or motivat*)).ti,ab.
37.	(henry or motivat* or educat*).ti,ab.
38.	((famil* or parent*) adj2 (therap* or program*)).ti,ab.
39.	or/22-38
40.	11 and 21
41.	39 and (11 or 21)
42.	40 or 41
43.	2 and 42
	See Table 1 for date parameters

CINAHL search terms

S1.	Standard population (A.2)
S2.	Excluded study designs and publication types (A.3.9)
S3.	1 not 2
S4.	Limit 3 to English language

S5.	(MH "exercise+") or (MH "physical activity") or (MH "therapeutic exercise+") or (MH "life style, sedentary")
S6.	exercise*
S7.	((resist* or strength or weight or intens* or fitness) n2 (train* or program* or therap*))
S8.	anaerobic* or aerobic*
S9.	hiit or interval* n2 train*
S10.	(physical* n2 (activit* or exert* or fit or fitness or train* or therap*))
S11.	(sedentary or ((sit or sitting) n3 time))
S12.	S5 or S6 or S7 or S8 or S9 or S10 or S11
S13.	(MH "diet+") or (MH "diet therapy+") or (MH "weight loss")
S14.	diet*
S15.	(weight n3 (loss* or lose or reduc* or percent*))
S16.	(hypocaloric or (low n1 calorie*) or vlcd)
S17.	((low* or reduc* or percent*) n3 (fat* or carb*))
S18.	((high* or percent*) n3 protein*)
S19.	S13 or S14 or S15 or S16 or S17 or S18
S20.	(MH "counseling") or (MH "psychotherapy+") or (MH "motivational interviewing") or (MH "motivation") or (MH "managed care programs") or (MH "self care")
S21.	(cbt or (cognit* n2 therap*) or (behav* n1 therap*))
S22.	(mbt or ((mentalization or mentalisation) n1 based n1 therap*))
S23.	feedback or biofeedback
S24.	((behav* or lifestyle or life-style) n3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*))
S25.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) n2 program*)
S26.	(psycholog* or council* or counsel* or psychotherap* or psychosocial)
S27.	((support* or advice or advise) n3 (telephone* or internet or online or web or app or apps or program* or group*))
S28.	psychotherap* or psychosocial*
S29.	psycholog* n2 intervent*
S30.	(self n3 (manage* or care or motivat*))
S31.	henry or motivat* or educat*
S32.	((famil* or parent*) n2 (therap* or program*))
S33.	S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29 or S30 or S31 or S32
S34.	S12 and S19
S35.	S12 or S19
S36.	S33 and S35
S37.	S34 or S36
S38.	S4 and S37
	See Table 1 for date parameters

PsycINFO (OVID) search terms

1.	liver disorders/
2.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
3.	(nafl* or nash).ti,ab.
4.	or/1-3
5.	limit 4 to English language

6.	diets/ or weight control/
7.	diet*.ti,ab.
8.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.
9.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
10.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
11.	((high* or percent*) adj3 protein*).ti,ab.
12.	or/6-11
13.	exp physical activity/
14.	physical fitness/
15.	exercise*.ti,ab.
16.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
17.	(anaerobic* or aerobic*).ti,ab.
18.	(hiit or (interval* adj2 train*)).ti,ab.
19.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
20.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
21.	or/13-20
22.	exp counseling/ or exp family therapy/ or exp support groups/
23.	exp behavior modification/ or exp psychotherapy/
24.	exp motivation/ or motivation training/
25.	social support/
26.	self care skills/
27.	(cbt or (cognit* adj2 therap*) or (behav* adj1 therap*)).ti,ab.
28.	(mbt or (mentali#ation adj based adj1 therap*)).ti,ab.
29.	(feedback or biofeedback).ti,ab.
30.	((behav* or lifestyle or life-style) adj3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)).ti,ab.
31.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) adj2 program*).ti,ab.
32.	(psycholog* or council* or counsel* or psychotherap* or psychosocial).ti,ab.
33.	((support* or advice or advise) adj3 (telephone* or internet or online or web or app or apps or program* or group*)).ti,ab.
34.	(psychotherap* or psychosocial*).ti,ab.
35.	(psycholog* adj2 intervent*).ti,ab.
36.	(self adj3 (manage* or care or motivat*)).ti,ab.
37.	(henry or motivat* or educat*).ti,ab.
38.	((famil* or parent*) adj2 (therap* or program*)).ti,ab.
39.	or/22-38
40.	12 and 21
41.	39 and (12 or 21)
42.	40 or 41
43.	5 and 42
	See Table 1 for date parameters

PsycINFO (ProQuest) search terms

1.	(su.exact("liver disorders") or ti,ab(((fatty or fat or steato*) near/3 (liver* or hepat*)) or steatohepat* or (visceral near/2 steato*)) or ti,ab(nafl* or nash)) and (((su.exact("diets") or su.exact("weight control") or ti,ab(diet*) or ti,ab(weight near/3 (loss* or lose or reduc* or

22.	percent*)) or ti,ab(hypocaloric or (low near/1 calorie*) or vlcd) or ti,ab((low* or reduc* or percent*) near/3 (fat* or carb*)) or ti,ab((high* or percent*) near/3 protein*)) and (su.exact.explode("physical activity") or su.exact("physical fitness") or ti,ab(exercise*) or ti,ab((resist* or strength or weight or intens* or fitness) near/2 (train* or program* or therap*)) or ti,ab(anaerobic* or aerobic*) or ti,ab(hiit or (interval* near/2 train*)) or ti,ab(physical* near/2 (activit* or exert* or fit or fitness or train* or therap*)) or ti,ab(sedentary or ((sit or sitting) near/3 time)))) or (((su.exact("diets") or su.exact("weight control") or ti,ab(diet*) or ti,ab(weight near/3 (loss* or lose or reduc* or percent*)) or ti,ab(hypocaloric or (low near/1 calorie*) or vlcd) or ti,ab((low* or reduc* or percent*) near/3 (fat* or carb*)) or ti,ab((high* or percent*) near/3 protein*)) or (su.exact.explode("physical activity") or su.exact("physical fitness") or ti,ab(exercise*) or ti,ab(resist* or strength or weight or intens* or fitness) near/2 (train* or program* or therap*)) or ti,ab(anaerobic* or aerobic*) or ti,ab(hiit or (interval* near/2 train*)) or ti,ab(physical* near/2 (activit* or exert* or fit or fitness or train* or therap*)) or ti,ab(sedentary or ((sit or sitting) near/3 time)))) and (su.exact.explode("counseling") or su.exact.explode("family therapy") or su.exact.explode("support groups") or su.exact.explode("behavior modification") or su.exact.explode("psychotherapy") or su.exact.explode("motivation") or su.exact("motivation training") or su.exact("social support") or su.exact("self care skills") or ti,ab(cbt or (cognit* near/2 therap*) or (behav* near/1 therap*)) or ti,ab(mbt or (mentali?ation-based near/4 therap*)) or ti,ab(feedback or biofeedback) or ti,ab((behav* or lifestyle or life-style) near/3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)) or ti,ab((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) near/2 program*) or ti,ab(psycholog* or council* or counsel* or psychotherap* or psychosocial) or ti,ab((support* or advice or advise) near/3 (telephone* or internet or online or web or app or apps or program* or group*)) or ti,ab(psychotherap* or psychosocial*) or ti,ab(psycholog* near/2 intervent*) or ti,ab(self near/3 (manage* or care or motivat*)) or ti,ab(henry or motivat* or educat*) or ti,ab((famil* or parent*) near/2 (therap* or program*)))))
	Date Parameters: 2014 – 27 August 2015

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp *diet/
6.	exp *diet therapy/
7.	*weight reduction/
8.	diet*.ti,ab.
9.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.
10.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
11.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
12.	((high* or percent*) adj3 protein*).ti,ab.
13.	or/5-12
14.	exp *exercise/
15.	exp *kinesiotherapy/
16.	*sedentary lifestyle/
17.	exp *physical activity/
18.	exercise*.ti,ab.
19.	((resist* or strength or weight or intens* or fitness) adj2 (train* or program* or therap*)).ti,ab.
20.	(anaerobic* or aerobic*).ti,ab.
21.	(hiit or (interval* adj2 train*)).ti,ab.

22.	(physical* adj2 (activit* or exert* or fit or fitness or train* or therap*)).ti,ab.
23.	(sedentary or ((sit or sitting) adj3 time)).ti,ab.
24.	or/14-23
25.	exp *counseling/
26.	exp *psychotherapy/
27.	*motivation/
28.	*social support/
29.	*health program/
30.	exp *self care/
31.	(cbt or (cognit* adj2 therap*) or (behav* adj1 therap*)).ti,ab.
32.	(mbt or (mentali#ation adj based adj1 therap*)).ti,ab.
33.	(feedback or biofeedback).ti,ab.
34.	((behav* or lifestyle or life-style) adj3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)).ti,ab.
35.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) adj2 program*).ti,ab.
36.	(psycholog* or council* or counsel* or psychotherap* or psychosocial).ti,ab.
37.	((support* or advice or advise) adj3 (telephone* or internet or online or web or app or apps or program* or group*)).ti,ab.
38.	(psychotherap* or psychosocial*).ti,ab.
39.	(psycholog* adj2 intervent*).ti,ab.
40.	(self adj3 (manage* or care or motivat*)).ti,ab.
41.	(henry or motivat* or educat*).ti,ab.
42.	((famil* or parent*) adj2 (therap* or program*)).ti,ab.
43.	or/25-42
44.	13 and 24
45.	43 and (13 or 24)
46.	44 or 45
47.	4 and 46
48.	Study filters SR (A.3.1) or RCT (A.3.2)
49.	47 and 48
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh exercise]
#3.	[mh "exercise therapy"]
#4.	[mh ^"sedentary lifestyle"]
#5.	exercise*:ti,ab
#6.	((resist* or strength or weight or intens* or fitness) near/2 (train* or program* or therap*)):ti,ab
#7.	(anaerobic* or aerobic*):ti,ab
#8.	(hiit or (interval* near/2 train*)):ti,ab
#9.	(physical* near/2 (activit* or exert* or fit or fitness or train* or therap*)):ti,ab
#10.	(sedentary or ((sit or sitting) near/3 time)):ti,ab
#11.	{or #2-#10}

#12.	[mh ^"weight loss"]
#13.	[mh "diet therapy"]
#14.	diet*:ti,ab
#15.	(weight near/3 (loss* or lose or reduc* or percent*)):ti,ab
#16.	(hypocaloric or (low near calorie*) or vlcd):ti,ab
#17.	((low* or reduc* or percent*) near/3 (fat* or carb*)):ti,ab
#18.	((high* or percent*) near/3 protein*)):ti,ab
#19.	{or #12-#18}
#20.	[mh ^counseling]
#21.	[mh "behavior therapy"]
#22.	[mh ^motivation]
#23.	[mh ^"social support"]
#24.	[mh psychotherapy]
#25.	[mh ^"managed care programs"]
#26.	[mh ^"self care"]
#27.	(cbt or (cognit* near/2 therap*) or (behav* near therap*)):ti,ab
#28.	(mbt or ((mentalization or mentalisation) next based near therap*)):ti,ab
#29.	(feedback or biofeedback):ti,ab
#30.	((behav* or lifestyle or life-style) near/3 (modif* or program* or therap* or change* or treatment* or interven* or adjust*)):ti,ab
#31.	((multifactor* or multifacet* or multi-facet* or multi-factor* or managed) near/2 program*):ti,ab
#32.	(psycholog* or council* or counsel* or psychotherap* or psychosocial):ti,ab
#33.	((support* or advice or advise) near/3 (telephone* or internet or online or web or app or apps or program* or group*)):ti,ab
#34.	(psychotherap* or psychosocial*):ti,ab
#35.	(psycholog* near/2 intervent*):ti,ab
#36.	(self near/3 (manage* or care or motivat*)):ti,ab
#37.	(henry or motivat* or educat*):ti,ab
#38.	((famil* or parent*) near/2 (therap* or program*)):ti,ab
#39.	{or #20-#38}
#40.	#11 and #19
#41.	#11 or #19
#42.	#39 and #41
#43.	#40 or #42
#44.	#1 and #43
	See Table 1 for date parameters

A.4.8   Monitoring

- How often should we monitor adults, young people and children with NAFLD or NASH (with or without fibrosis) to determine risk of disease progression?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2

4.	Limit 3 to English language
5.	exp disease progression/
6.	(disease adj (progress* or development* or evolution*)).ti,ab.
7.	(progress* adj2 (slow* or stable or rapid or fast or quick*)).ti,ab.
8.	(acute adj (worse* or exacerbat*)).ti,ab.
9.	(fibrosis adj2 (worse* or exacerbat*)).ti,ab.
10.	(fibrosis adj progress*).ti,ab.
11.	or/5-10
12.	4 and 11
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	*disease course/
6.	(disease adj (progress* or development* or evolution*)).ti,ab.
7.	(progress* adj2 (slow* or stable or rapid or fast or quick*)).ti,ab.
8.	(acute adj (worse* or exacerbat*)).ti,ab.
9.	(fibrosis adj2 (worse* or exacerbat*)).ti,ab.
10.	(fibrosis adj progress*).ti,ab.
11.	or/5-10
12.	4 and 11
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	(progress* near/2 (slow* or stable or rapid or fast or quick*)):ti,ab
#3.	MeSH descriptor: [disease progression] explode all trees
#4.	(acute next (worse* or exacerbat*)):ti,ab
#5.	(fibrosis near/2 (worse* or exacerbat*)):ti,ab
#6.	(fibrosis next progress*):ti,ab
#7.	{or #2-#6}
#8.	#1 and #7
	See Table 1 for date parameters

A.4.9 Risk factors

- Which risk factors for NAFLD or severe NAFLD (NASH, fibrosis) aid in the identification of people who should be investigated further?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)

3.	1 not 2
4.	Limit 3 to English language
5.	waist circumference/
6.	(waist adj (circumference or size)).ti,ab.
7.	body mass index/
8.	(((body mass or quetelet) adj ind*) or bmi).ti,ab.
9.	triglycerides/bl
10.	hypertriglyceridemia/
11.	(hypertriglyceridemia* or ((raise* or high or elevat* or increase*) adj2 triglycerid*)).ti,ab.
12.	exp hypoalphalipoproteinemias/
13.	exp lipoproteins, hdl/
14.	(hypoalphalipoproteineni* or ((hdl or ((high density or high-density or alpha or heavy) adj1 lipoprotein*)) adj2 (low or lower* or hypo or deficien*))).ti,ab.
15.	exp diabetes mellitus, type 2/
16.	(diabet* adj2 (type 2 or type2 or type ii or type two)).ti,ab.
17.	(dm2 or t2d*).ti,ab.
18.	(diabet* adj2 (noninsulin or non insulin or slow-onset or slow onset or adult-onset or adult onset)).ti,ab.
19.	exp hypertension/
20.	(hypertens* or high blood pressure*).ti,ab.
21.	metabolic syndrome x/
22.	(metabolic adj1 syndrom*).ti,ab.
23.	or/5-22
24.	4 and 23
25.	Study filters RCT (A.3.2) or RISK (A.3.5)
26.	24 and 25
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	*waist circumference/
6.	(waist adj (circumference or size)).ti,ab.
7.	*body mass/
8.	(((body mass or quetelet) adj ind*) or bmi).ti,ab.
9.	*triacylglycerol/
10.	*hypertriglyceridemia/
11.	(hypertriglyceridemia* or ((raise* or high or elevat* or increase*) adj2 triglycerid*)).ti,ab.
12.	exp *hypoalphalipoproteinemia/
13.	*high density lipoprotein/
14.	(hypoalphalipoproteineni* or ((hdl or ((high density or high-density or alpha or heavy) adj1 lipoprotein*)) adj2 (low or lower* or hypo or deficien*))).ti,ab.
15.	*non insulin dependent diabetes mellitus/
16.	(diabet* adj2 (type 2 or type2 or type ii or type two)).ti,ab.

17.	(dm2 or t2d*).ti,ab.
18.	(diabet* adj2 (noninsulin or non insulin or slow-onset or slow onset or adult-onset or adult onset)).ti,ab.
19.	exp *hypertension/
20.	(hypertens* or high blood pressure*).ti,ab.
21.	*metabolic syndrome x/
22.	(metabolic adj1 syndrom*).ti,ab.
23.	or/5-22
24.	4 and 23
25.	Study filters RCT (A.3.2) or RISK (A.3.5)
26.	24 and 25
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh ^"waist circumference"]
#3.	(waist next (circumference or size)):ti,ab
#4.	[mh ^"body mass index"]
#5.	((((body next mass) or quetelet) next ind*) or bmi):ti,ab
#6.	mesh descriptor: [triglycerides] explode all trees and with qualifier(s): [blood - bl]
#7.	[mh ^hypertriglyceridemia]
#8.	(hypertriglyceridemia* or ((raise* or high or elevat* or increase*) near/2 triglycerid*)):ti,ab
#9.	[mh hypoalphalipoproteinemias]
#10.	[mh "lipoproteins, hdl"]
#11.	(hypoalphalipoproteineni* or ((hdl or (("high density" or high-density or alpha or heavy) near/1 lipoprotein*)) near/2 (low or lower* or hypo or deficien*))):ti,ab
#12.	[mh "diabetes mellitus, type 2"]
#13.	(diabet* near/2 ("type 2" or type2 or "type ii" or "type two")):ti,ab
#14.	(dm2 or t2d*):ti,ab
#15.	(diabet* near/2 (noninsulin or "non insulin" or slow-onset or "slow onset" or adult-onset or "adult onset")):ti,ab
#16.	[mh hypertension]
#17.	(hypertens* or (high next blood next pressure*)):ti,ab
#18.	{or #2-#17}
#19.	#1 and #18
#20.	[mh risk]
#21.	[mh ^prevalence]
#22.	[mh ^incidence]
#23.	(risk* or prevalence* or incidence* or predict* or associat*):ti,ab
#24.	{or #20-#23}
#25.	#19 and #24
	See Table 1 for date parameters

A.4.10   Alcohol

- Should people with NAFLD restrict their consumption of alcohol to below national recommended levels?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp alcoholic beverages/
6.	ethanol/
7.	ethanol.ti,ab.
8.	alcohol abstinence/
9.	alcohol drinking/
10.	(alcohol* adj3 (drink* or unit* or ingest* or beverage* or intake or consum*)).ti,ab.
11.	(alcohol* adj3 (restrict* or limit* or confin* or moderat* or abstinen* or abstain* or reduc* or modest or teetotal*)).ti,ab.
12.	or/5-11
13.	4 and 12
14.	Study filters OBS (A.3.3) or RISK (A.3.5)
15.	13 and 14
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp *alcoholic beverage/
6.	*alcohol/
7.	ethanol.ti,ab.
8.	alcohol abstinence/
9.	alcohol consumption/
10.	(alcohol* adj3 (drink* or unit* or ingest* or beverage* or intake or consum*)).ti,ab.
11.	(alcohol* adj3 (restrict* or limit* or confin* or moderat* or abstinen* or abstain* or reduc* or modest or teetotal*)).ti,ab.
12.	drinking behavior/
13.	drink* behaviour*.ti,ab.
14.	or/5-13
15.	4 and 14
16.	Study filters OBS (A.3.3) or RISK (A.3.5)
17.	15 and 16
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	MeSH descriptor: [alcoholic beverages] explode all trees
#3.	MeSH descriptor: [ethanol] this term only
#4.	ethanol:ti,ab
#5.	MeSH descriptor: [alcohol abstinence] this term only
#6.	MeSH descriptor: [alcohol drinking] this term only

#7.	(alcohol* near/3 (drink* or unit* or ingest* or beverage* or intake or consum*)):ti,ab
#8.	(alcohol* near/3 (restrict* or limit* or confin* or moderat* or abstinen* or abstain* or reduc* or modest or teetotal*)):ti,ab
#9.	{or #2-#8}
#10.	#1 and #9
#11.	MeSH descriptor: [risk] explode all trees
#12.	MeSH descriptor: [prevalence] this term only
#13.	MeSH descriptor: [incidence] this term only
#14.	(risk* or prevalence* or incidence* or predict* or associat*):ti,ab
#15.	{or #11-#14}
#16.	#10 and #15
	See Table 1 for date parameters

A.4.11 Pharmacological

- What is the clinical and cost effectiveness of pharmacological interventions for adults, young people and children with NAFLD?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	*hydroxymethylglutaryl-coa reductase inhibitor/
6.	statin*.ti,ab.
7.	((hydroxymethylglutaryl-coa or hmg-coa) adj3 (reductase or inhibitor*)).ti,ab.
8.	exp *simvastatin/
9.	(simvastatin* or zocor).ti,ab.
10.	(atorvastatin* or lipitor).ti,ab.
11.	(rosuvastatin* or crestor).ti,ab.
12.	exp *pravastatin/
13.	(pravastatin* or lipostat).ti,ab.
14.	(fluvastatin* or lescol).ti,ab.
15.	or/5-14
16.	exp *angiotensin 1 receptor agonist/ or *angiotensin 2 receptor agonist/
17.	((angiotensin adj3 (receptor* adj2 (antagonist* or blocker*))) or arb or arbs).ti,ab.
18.	(candesartan or amias or eprosartan or teveten or irbesartan or aprovel).ti,ab.
19.	(coaprovel or losartan or cozaar or cozaar-comp or olmesartan or olmetec or sevikar).ti,ab.
20.	(exforge or telmisartan or micardis or valsartan or diovan or co-diovan or azilsartan or edarbi).ti,ab.
21.	exp *angiotensin-converting enzyme inhibitors/
22.	((ace or acei or ((angiotensin adj converting adj2 enzyme*) or ace or kininase)) adj2 (inhibit* or antagonist*)).ti,ab.
23.	(captopril or ecopace or kaplon or capoten or co-zidocapt or capto-co).ti,ab.
24.	(capozide or cilazapril or vascace or enalapril or ednyt or innovace or innozide or fosinopril).ti,ab.
25.	(quinapril or quinil or accupro or accuretic or ramipril or tritace or triapin or trandolapril or

	gopten or noyada or tarka).ti,ab.
26.	(imidapril or tanatril or lisinopril or zestril or carace or zestoretic or moexipril or perdix or perindopril or coversyl).ti,ab.
27.	exp *alpha adrenergic receptor blocking agent/
28.	(adrenergic alpha-antagonist* or adrenergic alpha antagonist*).ti,ab.
29.	(alpha blocker* adj2 (antagonist* or receptor*)).ti,ab.
30.	(doxazosin or cardura or tamsulosin or indoramin or baratol or prazosin or hypovase or terazosin or hytrin or moxisylyte or labetalol).ti,ab.
31.	exp dipeptidyl-peptidase iv inhibitor/
32.	((dpp4 or dipeptidyl peptidase-4 or dipeptidyl peptidase 4) adj2 inhibit*).ti,ab.
33.	(januvia or eucreas or galvus or onglyza or trajenta or jentadueto).ti,ab.
34.	(komboglyze or vildagliptin or sitagliptin or linagliptin or saxagliptin or metformin).ti,ab.
35.	exp glucagon like peptide 1/
36.	((glp-1 or glucagon-like peptide 1 or glucagon like peptide 1) adj2 (receptor* or agonist*)).ti,ab.
37.	(exenatide or lixisenatide or dulaglutide or liraglutide or bydureon).ti,ab.
38.	(byetta or lyxumia or trulicity or victoza).ti,ab.
39.	exp ursodeoxycholic acid/
40.	(ursodeoxycholic acid or ursodiol or usan or ucda).ti,ab.
41.	(destolit or urdox or ursofalk or ursogal).ti,ab.
42.	exp pentoxifylline/
43.	pentoxifylline.ti,ab.
44.	(trental or pentoxil).ti,ab.
45.	(orlistat or beacita or xencial or alli or tetrahydrolipstatin).ti,ab.
46.	exp metformin/
47.	(metaformin or diagemet or competact or glucient or glucophage).ti,ab.
48.	(glidipion or actospioglitazone or pioglitazone).ti,ab.
49.	exp alpha tocopherol/
50.	(vitamin e or vit* e or alpha tocopherol).ti,ab.
51.	exp vitamin d/
52.	(vitamin d or vit* d).ti,ab.
53.	or/15-52
54.	4 and 53
55.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
56.	54 and 55
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	*hydroxymethylglutaryl coenzyme a reductase inhibitor/
6.	statin*.ti,ab.
7.	((hydroxymethylglutaryl coenzyme a or hydroxymethylglutaryl-coa or hmg-coa) adj3 reductase inhibitor*).ti,ab.
8.	exp *simvastatin/

9.	(simvastatin* or zocor).ti,ab.
10.	(atorvastatin* or lipitor).ti,ab.
11.	(rosuvastatin* or crestor).ti,ab.
12.	exp *pravastatin/
13.	(pravastatin* or lipostat).ti,ab.
14.	(fluvastatin* or lescol).ti,ab.
15.	or/5-14
16.	exp angiotensin 1 receptor antagonist/ or angiotensin 2 receptor antagonist/
17.	((angiotensin adj3 (receptor* adj2 (antagonist* or blocker*))) or arb or arbs).ti,ab.
18.	(candesartan or amias or eprosartan or teveten or irbesartan or aprovel).ti,ab.
19.	(coaprovel or losartan or cozaar or cozaar-comp or olmesartan or olmetec or sevikar).ti,ab.
20.	(exforge or telmisartan or micardis or valsartan or diovan or co-diovan or azilsartan or edarbi).ti,ab.
21.	exp *dipeptidyl carboxypeptidase inhibitor/
22.	dipeptidyl carboxypeptidase inhibitor.ti,ab.
23.	((ace or acei or ((angiotensin adj converting adj2 enzyme*) or ace or kininase)) adj2 (inhibit* or antagonist)).ti,ab.
24.	(captopril or ecopace or kaplon or capoten or co-zidocapt or capto-co).ti,ab.
25.	(capozide or cilazapril or vascace or enalapril or ednyt or innovace or innozide or fosinopril).ti,ab.
26.	(quinapril or quinil or accupro or accuretic or ramipril or tritace or triapin or trandolapril or gopten or noyada or tarka).ti,ab.
27.	(imidapril or tanatril or lisinopril or zestril or carace or zestoretic or moexipril or perdix or perindopril or coversyl).ti,ab.
28.	exp *alpha adrenergic receptor blocking agent/
29.	(adrenergic alpha-antagonist* or adrenergic alpha antagonist* or alpha adrenergic receptor blocking agent).ti,ab.
30.	(alpha adrenergic* adj2 (block* or receptor* or agent)).ti,ab.
31.	(doxazosin or cardura or tamsulosin or indoramin or baratol or prazosin or hypovase or terazosin or hytrin or moxisylyte or labetalol).ti,ab.
32.	exp dipeptidyl peptidase iv inhibitor/
33.	((dpp4 or dipeptidyl peptidase-4 or dipeptidyl peptidase 4) adj2 inhibit*).ti,ab.
34.	(januvia or eucreas or galvus or onglyza or trajenta or jentadueto).ti,ab.
35.	(komboglyze or vildagliptin or sitagliptin or linagliptin or saxagliptin or metformin).ti,ab.
36.	exp glucagon like peptide 1/
37.	((glp-1 or glucagon-like peptide 1 or glucagon like peptide 1) adj2 (receptor* or agonist*)).ti,ab.
38.	(exenatide or lixisenatide or dulaglutide or liraglutide or bydureon).ti,ab.
39.	(byetta or lyxumia or trulicity or victoza).ti,ab.
40.	exp ursodeoxycholic acid/
41.	(ursodeoxycholic acid or ursodiol or usan or ucda).ti,ab.
42.	(destolit or urdox or ursofalk or ursogal).ti,ab.
43.	exp pentoxifylline/
44.	pentoxifylline.ti,ab.
45.	(trental or pentoxil).ti,ab.
46.	(orlistat or beacita or xencial or alli or tetrahydrolipstatin).ti,ab.
47.	exp metformin/

48.	(metaformin or diagemet or competact or glucient or glucophage).ti,ab.
49.	(glidipion or actospioglitazone or pioglitazone).ti,ab.
50.	exp alpha tocopherol/
51.	(vitamin e or vit* e or alpha tocopherol).ti,ab.
52.	exp vitamin d/
53.	((vitamin d or vit* d).ti,ab.
54.	or/15-53
55.	4 and 54
56.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
57.	55 and 56
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	MeSH descriptor: [hydroxymethylglutaryl-coa reductase inhibitors] this term only
#3.	statin*:ti,ab
#4.	((hydroxymethylglutaryl-coa or hmg-coa) near/3 (reductase or inhibitor*)):ti,ab
#5.	MeSH descriptor: [simvastatin] explode all trees
#6.	(simvastatin* or zocor):ti,ab
#7.	(atorvastatin* or lipitor):ti,ab
#8.	(rosuvastatin* or crestor):ti,ab
#9.	MeSH descriptor: [pravastatin] explode all trees
#10.	(pravastatin* or lipostat):ti,ab
#11.	(fluvastatin* or lescol):ti,ab
#12.	{or #2-#11}
#13.	MeSH descriptor: [angiotensin ii type 1 receptor blockers] explode all trees
#14.	MeSH descriptor: [angiotensin ii type 2 receptor blockers] explode all trees
#15.	((angiotensin near/3 (receptor* near/2 (antagonist* or blocker*))) or arb or arbs):ti,ab
#16.	(candesartan or amias or eprosartan or teveten or irbesartan or aprovel):ti,ab
#17.	(coaprovel or losartan or cozaar or cozaar-comp or olmesartan or olmetec or sevikar):ti,ab
#18.	(exforge or telmisartan or micardis or valsartan or diovan or co-diovan or azilsartan or edarbi):ti,ab
#19.	MeSH descriptor: [angiotensin-converting enzyme inhibitors] explode all trees
#20.	((ace or acei or ((angiotensin near converting near/2 enzyme*) or ace or kininase)) near/2 (inhibit* or antagonist*)):ti,ab
#21.	(captopril or ecopace or kaplon or capoten or co-zidocapt or capto-co):ti,ab
#22.	(capozide or cilazapril or vascace or enalapril or ednyt or innovace or innozide or fosinopril):ti,ab
#23.	(quinapril or quinil or accupro or accuretic or ramipril or tritace or triapin or trandolapril or gopten or noyada or tarka):ti,ab
#24.	(imidapril or tanatril or lisinopril or zestril or carace or zestoretic or moexipril or perdix or perindopril or coversyl):ti,ab
#25.	MeSH descriptor: [adrenergic alpha-antagonists] explode all trees
#26.	(adrenergic alpha-antagonist* or adrenergic alpha antagonist*):ti,ab
#27.	(alpha blocker* near/2 (antagonist* or receptor*)):ti,ab
#28.	(doxazosin or cardura or tamsulosin or indoramin or baratol or prazosin or hypovase or terazosin or hytrin or moxisylyte or labetalol):ti,ab

#29.	MeSH descriptor: [dipeptidyl-peptidase iv inhibitors] explode all trees
#30.	((dpp4 or dipeptidyl peptidase-4 or dipeptidyl peptidase 4) near/2 inhibit*):ti,ab
#31.	(januvia or eucreas or galvus or onglyza or trajenta or jentadueto):ti,ab
#32.	(komboglyze or vildagliptin or sitagliptin or linagliptin or saxagliptin or metformin):ti,ab
#33.	MeSH descriptor: [glucagon-like peptide 1] explode all trees
#34.	((glp-1 or glucagon-like peptide 1 or glucagon like peptide 1) near/2 (receptor* or agonist*)):ti,ab
#35.	(exenatide or lixisenatide or dulaglutide or liraglutide or bydureon):ti,ab
#36.	(byetta or lyxumia or trulicity or victoza):ti,ab
#37.	MeSH descriptor: [ursodeoxycholic acid] explode all trees
#38.	(ursodeoxycholic acid or ursodiol or usan or ucda):ti,ab
#39.	(destolit or urdox or ursofalk or ursogal):ti,ab
#40.	MeSH descriptor: [pentoxifylline] explode all trees
#41.	pentoxifylline:ti,ab
#42.	(trental or pentoxil):ti,ab
#43.	(orlistat or beacita or xencial or alli or tetrahydrolipstatin):ti,ab
#44.	MeSH descriptor: [metformin] explode all trees
#45.	(metaformin or diagemet or competact or glucient or glucophage):ti,ab
#46.	(glidipion or actospioglitazone or pioglitazone):ti,ab
#47.	MeSH descriptor: [vitamin e] explode all trees
#48.	(vitamin e or vit* e):ti,ab
#49.	MeSH descriptor: [vitamin d] explode all trees
#50.	(vitamin d or vit* d):ti,ab
#51.	{or #12-#50}
#52.	#1 and #51
	See Table 1 for date parameters

A.4.12   Diet

- What is the clinical and cost effectiveness of dietary interventions for weight reduction for adults, young people and children with NAFLD compared with standard care?
- What is the clinical and cost effectiveness of dietary modifications or supplements for adults, young people and children with NAFLD compared with standard care?

Medline search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp diet/
6.	weight loss/
7.	exp diet therapy/
8.	exp fish oils/
9.	exp dietary supplements/
10.	exp dietary fiber/
11.	diet*.ti,ab.
12.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.

13.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
14.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
15.	((high* or percent*) adj3 protein*).ti,ab.
16.	((n-3 or n3) adj fatty acid*).ti,ab.
17.	(omega-3 or omega3 or omega 3).ti,ab.
18.	((marine or fish) adj2 (lipid* or oil* or triglyceride*)).ti,ab.
19.	(probiotic* or yakult).ti,ab.
20.	(prebiotic* or fibre or fiber).ti,ab.
21.	(diet* adj2 supplement*).ti,ab.
22.	or/5-21
23.	4 and 22
24.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
25.	23 and 24
	See Table 1 for date parameters

AMED search terms

1.	Standard population (A.2)
2.	Limit 1 to English language
3.	exp diet/
4.	exp diet therapy/
5.	weight loss/
6.	fish oils/
7.	fatty acids/
8.	dietary fiber/ or dietary supplements/
9.	probiotics/
10.	diet*.ti,ab.
11.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.
12.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
13.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
14.	((high* or percent*) adj3 protein*).ti,ab.
15.	((n-3 or n3) adj fatty acid*).ti,ab.
16.	(omega-3 or omega3 or omega 3).ti,ab.
17.	((marine or fish) adj2 (lipid* or oil* or triglyceride*)).ti,ab.
18.	(probiotic* or yakult).ti,ab.
19.	(prebiotic* or fibre or fiber).ti,ab.
20.	(diet* adj2 supplement*).ti,ab.
21.	or/3-20
22.	2 and 21
	See Table 1 for date parameters

Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	exp *diet/

6.	exp *diet therapy/
7.	*weight reduction/
8.	*fish oil/
9.	*omega 3 fatty acid/
10.	*probiotic agent/
11.	*dietary fiber/
12.	*prebiotic agent/
13.	diet*.ti,ab.
14.	(weight adj3 (loss* or lose or reduc* or percent*)).ti,ab.
15.	(hypocaloric or (low adj1 calorie*) or vlcd).ti,ab.
16.	((low* or reduc* or percent*) adj3 (fat* or carb*)).ti,ab.
17.	((high* or percent*) adj3 protein*).ti,ab.
18.	((n-3 or n3) adj fatty acid*).ti,ab.
19.	(omega-3 or omega3 or omega 3).ti,ab.
20.	((marine or fish) adj2 (lipid* or oil* or triglyceride*)).ti,ab.
21.	(probiotic* or yakult).ti,ab.
22.	(prebiotic* or fibre or fiber).ti,ab.
23.	(diet* adj2 supplement*).ti,ab.
24.	or/5-23
25.	4 and 24
26.	Study filters SR (A.3.1) or RCT (A.3.2) or OBS (A.3.3)
27.	25 and 26
	See Table 1 for date parameters

CINAHL search terms

S1.	Standard population (A.2)
S2.	Excluded study designs and publication types (A.3.9)
S3.	1 not 2
S4.	Limit 3 to English language
S5.	(MH "diet+") or (MH "diet therapy+") or (MH "weight loss") or (MH "fish oils+") or (MH "dietary supplements+") or (MH "dietary fiber") or (MH "prebiotics") or (MH "fatty acids, omega-3+")
S6.	diet*
S7.	(weight n3 (loss* or lose or reduc* or percent*))
S8.	(hypocaloric or (low n1 calorie*) or vlcd)
S9.	((low* or reduc* or percent*) n3 (fat* or carb*))
S10.	((high* or percent*) n3 protein*)
S11.	((n-3 or n3) n1 fatty acid*)
S12.	(omega-3 or omega3 or omega 3)
S13.	((marine or fish) n2 (lipid* or oil* or triglyceride*))
S14.	probiotic* or yakult
S15.	prebiotic* or fibre or fiber
S16.	diet* n2 supplement*
S17.	S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15
S18.	S4 and S17
	See Table 1 for date parameters

Cochrane search terms

#1.	Standard population (A.2)
#2.	[mh diet]
#3.	[mh ^"weight loss"]
#4.	[mh "diet therapy"]
#5.	[mh "fish oils"]
#6.	[mh "dietary supplements"]
#7.	[mh "dietary fiber"]
#8.	diet*:ti,ab
#9.	(weight near/3 (loss* or lose or reduc* or percent*)):ti,ab
#10.	(hypocaloric or (low near/1 calorie*) or vlcd):ti,ab
#11.	((low* or reduc* or percent*) near/3 (fat* or carb*)):ti,ab
#12.	((high* or percent*) near/3 protein*):ti,ab
#13.	((n-3 or n3) next fatty acid*):ti,ab
#14.	(omega-3 or omega3 or omega 3):ti,ab
#15.	((marine or fish) near/2 (lipid* or oil* or triglyceride*)):ti,ab
#16.	(probiotic* or yakult):ti,ab
#17.	(prebiotic* or fibre or fiber):ti,ab
#18.	(diet* near/2 supplement*):ti,ab
#19.	{or #2-#18}
#20.	#1 and #19
	See Table 1 for date parameters

A.5 Health economics search

A.5.1 Health economic reviews

Economic searches were conducted in Medline, Embase, HEED and CRD for NHS EED and HTA.

Medline and Embase search terms

1.	Standard population (A.2)
2.	Excluded study designs and publication types (A.3.9)
3.	1 not 2
4.	Limit 3 to English language
5.	Study design filter HE (A.3.6)
6.	4 and 5
	See Table 1 for date parameters

CRD search terms

#1.	MeSH descriptor fatty liver explode all trees in NHSEED,HTA
#2.	MeSH descriptor non-alcoholic fatty liver disease in NHSEED,HTA
#3.	(((fatty or fat or steato*) adj3 (liver* or hepat*))) in NHSEED, HTA
#4.	(steatohepat*) in NHSEED, HTA
#5.	((visceral adj2 steato*)) in NHSEED, HTA
#6.	(nafl* or nash) in NHSEED, HTA

#7.	(#1 or #2 or #3 or #4 or #5 or #6) in NHSEED, HTA from 2014 to 2015
	See Table 1 for date parameters

HEED search terms

1.	ax=fatty or fat or steato*
2.	ax=liver* or hepat*
3.	cs=1 and 2
4.	ax=steatohepat*
5.	ax=visceral and steato*
6.	ax=nafl* or nash
7.	cs=3 or 4 or 5 or 6
	Date parameters: Inception to 13 June 2014

A.5.2 Quality of life reviews

Quality of life searches were conducted in Medline and Embase only. The populations for cirrhosis and NAFLD were combined for this search.

Medline search terms

1.	fatty liver/
2.	non-alcoholic fatty liver disease/
3.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
4.	(nafl* or nash).ti,ab.
5.	or/1-4
6.	Excluded study designs and publication types (A.3.9)
7.	5 not 6
8.	Study filter QOL (A.3.7)
9.	7 and 8
10.	Limit 9 to English language & date parameters: 1946 to 27 August 2015
11.	exp liver cirrhosis/
12.	fibrosis/ and liver/
13.	(((liver* or hepat*) adj5 fibro*) or cirrho*).ti,ab.
14.	or/11-13
15.	ascites/
16.	ascit*.ti,ab.
17.	or/15-16
18.	14 or 17
19.	18 not 6
20.	19 and 8
21.	Limit 20 to English language & date parameters: 1946 to 13 June 2014
22.	10 or 21

Embase search terms

1.	nonalcoholic fatty liver/
2.	(((fatty or fat or steato*) adj3 (liver* or hepat*)) or steatohepat* or (visceral adj2 steato*)).ti,ab.
3.	(nafl* or nash).ti,ab.

4.	or/1-3
5.	Excluded study designs and publication types (A.3.9)
6.	4 not 5
7.	Study filter QOL (A.3.7)
8.	6 and 7
9.	Limit 8 to English language & date parameters: 1980 to 27 August 2015
10.	exp liver cirrhosis/
11.	fibrosis/ and liver/
12.	(((liver* or hepat*) adj5 fibro*) or cirrho*).ti,ab.
13.	or/10-12
14.	exp *ascites/
15.	ascit*.ti,ab.
16.	or/15-15
17.	13 or 16
18.	17 not 5
19.	18 and 7
20.	Limit 20 to English language & date parameters: 1946 to 13 June 2014
21.	9 or 20

A.5.3 Economic modelling

Economic modelling searches were conducted in Medline, Embase, HEED and CRD for NHS EED and HTA

Medline search terms

1.	exp *liver diseases/
2.	(liver* or hepat* or steatohepat* or cirrho*).ti.
3.	or/1-2
4.	Excluded study designs and publication types (A.3.9)
5.	3 not 4
6.	Study design filter MOD (A.3.8)
7.	5 and 6
8.	Limit 7 to English language
	Date parameters: 1946 to 27 August 2015

Embase search terms

1.	exp *liver disease/
2.	(liver* or hepat* or steatohepat* or cirrho*).ti.
3.	or/1-2
4.	Excluded study designs and publication types (A.3.9)
5.	3 not 4
6.	Study design filter MOD (A.3.8)
7.	5 and 6
8.	Limit 7 to English language
	Date parameters: 1980 to 27 August 2015

CRD search terms

#1.	MeSH descriptor liver diseases explode all trees in NHSEED,HTA
#2.	(liver* or hepat* or steatohepat* or cirrho*):ti in NHSEED, HTA
#3.	#1 or #2
#4.	MeSH descriptor models, economic explode all trees in NHSEED,HTA
#5.	MeSH descriptor models, theoretical in NHSEED,HTA
#6.	MeSH descriptor models, organizational in NHSEED,HTA
#7.	MeSH descriptor markov chains in NHSEED,HTA
#8.	MeSH descriptor monte carlo method in NHSEED,HTA
#9.	MeSH descriptor decision theory explode all trees in NHSEED,HTA
#10.	(markov* or monte carlo) or (econom* model*) in NHSEED, HTA
#11.	((decision* adj2 (tree* or analy* or model*))) in NHSEED, HTA
#12.	#4 or #5 or #6 or #7 or #8 or #9 or #10 or #11
#13.	#3 and #12
	Date parameters: Inception to 27 August 2015

HEED search terms

1.	ti=liver* or hepat* or steatohepat* or cirrho*
2.	ax=model* or markov or monte carlo
3.	cs=1 and 2
	Date parameters: Inception to 27 August 2014

A.6 References

1 National Institute for Health and Clinical Excellence. The guidelines manual. London: National Institute for Health and Clinical Excellence; 2012. Available from: http://publications.nice.org.uk/the-guidelines-manual-pmg6/