

Cannabis-based products for medicinal use

NICE guideline: Search strategies

NICE guideline xxxx

Methods, evidence and recommendations

July 2019

Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and, where appropriate, their carer or guardian.

Local commissioners and providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#), and [Northern Ireland Executive](#). All NICE guidance is subject to regular review and may be updated or withdrawn.

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1.1 Chronic pain

A single systematic search was conducted for all of the questions within this evidence review between 19th December 2018 and 21st January 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, (all via the Ovid platform), Cochrane Database of Systematic Reviews CENTRAL (all via the Wiley platform), and the HTA and DARE databases (both via the CRD platform). NICE inhouse RCT, systematic review, and observational filters were attached where appropriate.

The MEDLINE strategy is presented below. This was translated for other databases

- 1 Medical Marijuana/
- 2 cannabinoids/ or cannabidiol/ or cannabino/ or cannabis/
- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDa.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.

- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Randomized Controlled Trial.pt.
- 27 Controlled Clinical Trial.pt.
- 28 Clinical Trial.pt.
- 29 exp Clinical Trials as Topic/
- 30 Placebos/
- 31 Random Allocation/
- 32 Double-Blind Method/
- 33 Single-Blind Method/
- 34 Cross-Over Studies/
- 35 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 36 (random\$ adj3 allocat\$).tw.
- 37 placebo\$.tw.
- 38 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 39 (crossover\$ or (cross adj over\$)).tw.
- 40 or/20-33
- 41 Meta-Analysis.pt.
- 42 Network Meta-Analysis/
- 43 Meta-Analysis as Topic/
- 44 Review.pt.
- 45 exp Review Literature as Topic/
- 46 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 47 (review\$ or overview\$).ti.
- 48 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 49 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 50 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 51 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 52 (pool\$ adj2 (analy\$ or data)).tw.

- 53 (handsearch\$ or (hand adj3 search\$)).tw.
- 54 (manual\$ adj3 search\$).tw.
- 55 or/35-48
- 56 34 or 49
- 57 19 and 50
- 58 Observational Studies as Topic/
- 59 Observational Study/
- 60 Epidemiologic Studies/
- 61 exp Case-Control Studies/
- 62 exp Cohort Studies/
- 63 Cross-Sectional Studies/
- 64 Controlled Before-After Studies/
- 65 Historically Controlled Study/
- 66 Interrupted Time Series Analysis/
- 67 Comparative Study.pt.
- 68 case control\$.tw.
- 69 case series.tw.
- 70 (cohort adj (study or studies)).tw.
- 71 cohort analy\$.tw.
- 72 (follow up adj (study or studies)).tw.
- 73 (observational adj (study or studies)).tw.
- 74 longitudinal.tw.
- 75 prospective.tw.
- 76 retrospective.tw.
- 77 cross sectional.tw.
- 78 or/26-45
- 79 25 and 46
- 80 57 or 79

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all va the Ovid

platform), NHS EED and the Health Technology Assessment Database (via the CRD platform). NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the Medline version shown above) in the Medline and Embase databases. The Medline version of the filters is displayed below.

Economic evaluations

- 1 Economics/
- 2 exp "Costs and Cost Analysis"/
- 3 Economics, Dental/
- 4 exp Economics, Hospital/
- 5 exp Economics, Medical/
- 6 Economics, Nursing/
- 7 Economics, Pharmaceutical/
- 8 Budgets/
- 9 exp Models, Economic/
- 10 Markov Chains/
- 11 Monte Carlo Method/
- 12 Decision Trees/
- 13 econom\$.tw.
- 14 cba.tw.
- 15 cea.tw.
- 16 cua.tw.
- 17 markov\$.tw.
- 18 (monte adj carlo).tw.
- 19 (decision adj3 (tree\$ or analys\$)).tw.
- 20 (cost or costs or costing\$ or costly or costed).tw.
- 21 (price\$ or pricing\$).tw.
- 22 budget\$.tw.
- 23 expenditure\$.tw.
- 24 (value adj3 (money or monetary)).tw.
- 25 (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
- 26 or/1-25

Quality of life

1. "Quality of Life"/
2. quality of life.tw.
3. "Value of Life"/
4. Quality-Adjusted Life Years/
5. quality adjusted life.tw.
6. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
7. disability adjusted life.tw.
8. daly\$.tw.
9. Health Status Indicators/
10. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.

12. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
13. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15. (euroqol or euro qol or eq5d or eq 5d).tw.
16. (qol or hql or hqol or hrqol).tw.
17. (hye or hyes).tw.
18. health\$ year\$ equivalent\$.tw.
19. utilit\$.tw.
20. (hui or hui1 or hui2 or hui3).tw.
21. disutili\$.tw.
22. rosser.tw.
23. quality of wellbeing.tw.
24. quality of well-being.tw.
25. qwb.tw.
26. willingness to pay.tw.
27. standard gamble\$.tw.
28. time trade off.tw.
29. time tradeoff.tw.
30. tto.tw.
31. or/1-30

A search of the MHRA was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Abalone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

1.1.1 Search history – observational studies

Databases	Date searched	Version/files	No. retrieved	RefMan data
Embase (Ovid)	20/12/2018	1974 to 2018 December 18	2011	2427-4437
MEDLINE (Ovid)	20/12/2018	1946 to December 19, 2018	2264	1-2264
MEDLINE In-Process (Ovid)	20/12/2018	December 19, 2018	132	2265-2396
MEDLINE epubs (Ovid)	20/12/2018	December 19, 2018	30	2397-2426
MHRA – Drug Safety Alerts ²				

1.1.2 Search history – observational studies: Medline search

Database: MEDLINE
<p>Strategy used:</p> <p>Database: Ovid MEDLINE(R) <1946 to December 18, 2018></p> <p>Search Strategy:</p> <p>-----</p> <ol style="list-style-type: none"> 1 Medical Marijuana/ (732) 2 cannabinoids/ or cannabidiol/ or cannabinol/ or cannabis/ (14684) 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or THC or tetrahydrocannabinol* or 9-delta-tetra-hydrocannabinol* or "9 delta tetra hydrocannabinol" or compound*)).tw. (5770) 4 (epidiox* or cannabidiol* or cannabinoid*).tw. (15896) 5 (sativex or nabiximols or tetrabinex or nabidiox).tw. (173) 6 (nabilone or cesamet).tw. (237) 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw. (7) 8 or/1-7 (25311)

- 9 Observational Studies as Topic/ (3464)
- 10 Observational Study/ (55720)
- 11 Epidemiologic Studies/ (7826)
- 12 exp Case-Control Studies/ (960041)
- 13 exp Cohort Studies/ (1807116)
- 14 Cross-Sectional Studies/ (281284)
- 15 Controlled Before-After Studies/ (366)
- 16 Historically Controlled Study/ (146)
- 17 Interrupted Time Series Analysis/ (512)
- 18 Comparative Study.pt. (1816843)
- 19 case control\$.tw. (101282)
- 20 case series.tw. (51003)
- 21 (cohort adj (study or studies)).tw. (138635)
- 22 cohort analy\$.tw. (5562)
- 23 (follow up adj (study or studies)).tw. (42522)
- 24 (observational adj (study or studies)).tw. (71051)
- 25 longitudinal.tw. (179685)
- 26 prospective.tw. (445972)
- 27 retrospective.tw. (382273)
- 28 cross sectional.tw. (241222)
- 29 or/9-28 (4036363)
- 30 8 and 29 (3359)
- 31 animals/ not humans/ (4493878)
- 32 30 not 31 (2413)
- 33 limit 32 to english language (2270)

1.2 Epilepsy

A single systematic search was conducted for all of the questions within this evidence review between 19th December 2018 and 21st January 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, (all via the Ovid platform), Cochrane Database of Systematic Reviews CENTRAL (all via the Wiley platform), and the HTA and DARE databases (both via the CRD platform). NICE inhouse RCT, systematic review, and observational filters were attached where appropriate.

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- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDA.tw.
- 17 cannabino*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.

- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Randomized Controlled Trial.pt.
- 27 Controlled Clinical Trial.pt.
- 28 Clinical Trial.pt.
- 29 exp Clinical Trials as Topic/
- 30 Placebos/
- 31 Random Allocation/
- 32 Double-Blind Method/
- 33 Single-Blind Method/
- 34 Cross-Over Studies/
- 35 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 36 (random\$ adj3 allocat\$).tw.
- 37 placebo\$.tw.
- 38 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 39 (crossover\$ or (cross adj over\$)).tw.
- 40 or/20-33
- 41 Meta-Analysis.pt.
- 42 Network Meta-Analysis/
- 43 Meta-Analysis as Topic/
- 44 Review.pt.
- 45 exp Review Literature as Topic/
- 46 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 47 (review\$ or overview\$).ti.
- 48 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 49 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 50 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 51 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 52 (pool\$ adj2 (analy\$ or data)).tw.

- 53 (handsearch\$ or (hand adj3 search\$)).tw.
- 54 (manual\$ adj3 search\$).tw.
- 55 or/35-48
- 56 34 or 49
- 57 19 and 50
- 58 Observational Studies as Topic/
- 59 Observational Study/
- 60 Epidemiologic Studies/
- 61 exp Case-Control Studies/
- 62 exp Cohort Studies/
- 63 Cross-Sectional Studies/
- 64 Controlled Before-After Studies/
- 65 Historically Controlled Study/
- 66 Interrupted Time Series Analysis/
- 67 Comparative Study.pt.
- 68 case control\$.tw.
- 69 case series.tw.
- 70 (cohort adj (study or studies)).tw.
- 71 cohort analy\$.tw.
- 72 (follow up adj (study or studies)).tw.
- 73 (observational adj (study or studies)).tw.
- 74 longitudinal.tw.
- 75 prospective.tw.
- 76 retrospective.tw.
- 77 cross sectional.tw.
- 78 or/26-45
- 79 25 and 46
- 80 57 or 79

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all va the Ovid

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2. Economics/
3. exp "Costs and Cost Analysis"/
4. Economics, Dental/
5. exp Economics, Hospital/
6. exp Economics, Medical/
7. Economics, Nursing/
8. Economics, Pharmaceutical/
9. Budgets/
10. exp Models, Economic/
11. Markov Chains/
12. Monte Carlo Method/
13. Decision Trees/
14. econom\$.tw.
15. cba.tw.
16. cea.tw.
17. cua.tw.
18. markov\$.tw.
19. (monte adj carlo).tw.
20. (decision adj3 (tree\$ or analys\$)).tw.
21. (cost or costs or costing\$ or costly or costed).tw.
22. (price\$ or pricing\$).tw.
23. budget\$.tw.
24. expenditure\$.tw.
25. (value adj3 (money or monetary)).tw.
26. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
27. or/1-25

Quality of life

1. "Quality of Life"/
2. quality of life.tw.
3. "Value of Life"/
4. Quality-Adjusted Life Years/
5. quality adjusted life.tw.
6. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
7. disability adjusted life.tw.
8. daly\$.tw.
9. Health Status Indicators/
10. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
12. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.

13. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15. (euroqol or euro qol or eq5d or eq 5d).tw.
16. (qol or hql or hqol or hrqol).tw.
17. (hye or hyes).tw.
18. health\$ year\$ equivalent\$.tw.
19. utilit\$.tw.
20. (hui or hui1 or hui2 or hui3).tw.
21. disutili\$.tw.
22. rosser.tw.
23. quality of wellbeing.tw.
24. quality of well-being.tw.
25. qwb.tw.
26. willingness to pay.tw.
27. standard gamble\$.tw.
28. time trade off.tw.
29. time tradeoff.tw.
30. tto.tw.
31. or/1-30

A search of the MHRA was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

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Epidiolex

Nabiximols

Abalone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

1.3 Intractable nausea

A single systematic search was conducted for all of the questions within this evidence review between 19th December 2018 and 21st January 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, (all via the Ovid platform), Cochrane Database of Systematic Reviews CENTRAL (all via the Wiley platform), and the HTA and DARE databases (both via the CRD platform). NICE inhouse RCT, systematic review, and observational filters were attached where appropriate.

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- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.

- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDa.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.
- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Randomized Controlled Trial.pt.
- 27 Controlled Clinical Trial.pt.
- 28 Clinical Trial.pt.
- 29 exp Clinical Trials as Topic/
- 30 Placebos/
- 31 Random Allocation/
- 32 Double-Blind Method/
- 33 Single-Blind Method/
- 34 Cross-Over Studies/
- 35 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 36 (random\$ adj3 allocat\$).tw.
- 37 placebo\$.tw.
- 38 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 39 (crossover\$ or (cross adj over\$)).tw.
- 40 or/20-33
- 41 Meta-Analysis.pt.

- 42 Network Meta-Analysis/
- 43 Meta-Analysis as Topic/
- 44 Review.pt.
- 45 exp Review Literature as Topic/
- 46 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 47 (review\$ or overview\$).ti.
- 48 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 49 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 50 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 51 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 52 (pool\$ adj2 (analy\$ or data)).tw.
- 53 (handsearch\$ or (hand adj3 search\$)).tw.
- 54 (manual\$ adj3 search\$).tw.
- 55 or/35-48
- 56 34 or 49
- 57 19 and 50
- 58 Observational Studies as Topic/
- 59 Observational Study/
- 60 Epidemiologic Studies/
- 61 exp Case-Control Studies/
- 62 exp Cohort Studies/
- 63 Cross-Sectional Studies/
- 64 Controlled Before-After Studies/
- 65 Historically Controlled Study/
- 66 Interrupted Time Series Analysis/
- 67 Comparative Study.pt.
- 68 case control\$.tw.
- 69 case series.tw.
- 70 (cohort adj (study or studies)).tw.
- 71 cohort analy\$.tw.
- 72 (follow up adj (study or studies)).tw.

- 73 (observational adj (study or studies)).tw.
- 74 longitudinal.tw.
- 75 prospective.tw.
- 76 retrospective.tw.
- 77 cross sectional.tw.
- 78 or/26-45
- 79 25 and 46
- 80 57 or 79

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all va the Ovid platform), NHS EED and the Health Technology Assessment Database (via the CRD platform). NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the MEDLINE version shown above) in the MEDLINE and Embase databases. The MEDLINE version of the filters is displayed below.

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- 5. exp Economics, Medical/
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- 7. Economics, Pharmaceutical/
- 8. Budgets/
- 9. exp Models, Economic/
- 10. Markov Chains/
- 11. Monte Carlo Method/
- 12. Decision Trees/
- 13. econom\$.tw.
- 14. cba.tw.
- 15. cea.tw.
- 16. cua.tw.
- 17. markov\$.tw.
- 18. (monte adj carlo).tw.
- 19. (decision adj3 (tree\$ or analys\$)).tw.
- 20. (cost or costs or costing\$ or costly or costed).tw.
- 21. (price\$ or pricing\$).tw.
- 22. budget\$.tw.
- 23. expenditure\$.tw.
- 24. (value adj3 (money or monetary)).tw.
- 25. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
- 26. or/1-25

Quality of life

1. "Quality of Life"/
2. quality of life.tw.
3. "Value of Life"/
4. Quality-Adjusted Life Years/
5. quality adjusted life.tw.
6. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
7. disability adjusted life.tw.
8. daly\$.tw.
9. Health Status Indicators/
10. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
12. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
13. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15. (euroqol or euro qol or eq5d or eq 5d).tw.
16. (qol or hql or hqol or hrqol).tw.
17. (hye or hyes).tw.
18. health\$ year\$ equivalent\$.tw.
19. utilit\$.tw.
20. (hui or hui1 or hui2 or hui3).tw.
21. disutili\$.tw.
22. rosser.tw.
23. quality of wellbeing.tw.
24. quality of well-being.tw.
25. qwb.tw.
26. willingness to pay.tw.
27. standard gamble\$.tw.
28. time trade off.tw.
29. time tradeoff.tw.
30. tto.tw.
31. or/1-30

A search of the MHRA was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Abalone

Tetrabinex
Nabidiolex
Cesamet
Tilray
Bedrocan
Bedrobinol
Bedica
Bediol
Bedrolite
Marinol
Syndros
THC
Tetrahydrocannabinol
Cannabinol
Cannibigerol
Cannabichromene
Tetrahydrocannabivarin
Cannabidivarin

1.4 Spasticity

A single systematic search was conducted for all of the questions within this evidence review between 19th December 2018 and 21st January 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, (all via the Ovid platform), Cochrane Database of Systematic Reviews CENTRAL (all via the Wiley platform), and the HTA and DARE databases (both via the CRD platform). NICE inhouse RCT, systematic review, and observational filters were attached where appropriate.

The MEDLINE strategy is presented below. This was translated for other databases

- 1 Medical Marijuana/
- 2 cannabinoids/ or cannabidiol/ or cannabinol/ or cannabis/
- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.

- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDa.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.
- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Randomized Controlled Trial.pt.
- 27 Controlled Clinical Trial.pt.
- 28 Clinical Trial.pt.
- 29 exp Clinical Trials as Topic/
- 30 Placebos/
- 31 Random Allocation/
- 32 Double-Blind Method/
- 33 Single-Blind Method/

- 34 Cross-Over Studies/
- 35 ((random\$ or control\$ or clinical\$) adj3 (trial\$ or stud\$)).tw.
- 36 (random\$ adj3 allocat\$).tw.
- 37 placebo\$.tw.
- 38 ((singl\$ or doubl\$ or trebl\$ or tripl\$) adj (blind\$ or mask\$)).tw.
- 39 (crossover\$ or (cross adj over\$)).tw.
- 40 or/20-33
- 41 Meta-Analysis.pt.
- 42 Network Meta-Analysis/
- 43 Meta-Analysis as Topic/
- 44 Review.pt.
- 45 exp Review Literature as Topic/
- 46 (metaanaly\$ or metanaly\$ or (meta adj3 analy\$)).tw.
- 47 (review\$ or overview\$).ti.
- 48 (systematic\$ adj5 (review\$ or overview\$)).tw.
- 49 ((quantitative\$ or qualitative\$) adj5 (review\$ or overview\$)).tw.
- 50 ((studies or trial\$) adj2 (review\$ or overview\$)).tw.
- 51 (integrat\$ adj3 (research or review\$ or literature)).tw.
- 52 (pool\$ adj2 (analy\$ or data)).tw.
- 53 (handsearch\$ or (hand adj3 search\$)).tw.
- 54 (manual\$ adj3 search\$).tw.
- 55 or/35-48
- 56 34 or 49
- 57 19 and 50
- 58 Observational Studies as Topic/
- 59 Observational Study/
- 60 Epidemiologic Studies/
- 61 exp Case-Control Studies/
- 62 exp Cohort Studies/
- 63 Cross-Sectional Studies/
- 64 Controlled Before-After Studies/

- 65 Historically Controlled Study/
- 66 Interrupted Time Series Analysis/
- 67 Comparative Study.pt.
- 68 case control\$.tw.
- 69 case series.tw.
- 70 (cohort adj (study or studies)).tw.
- 71 cohort analy\$.tw.
- 72 (follow up adj (study or studies)).tw.
- 73 (observational adj (study or studies)).tw.
- 74 longitudinal.tw.
- 75 prospective.tw.
- 76 retrospective.tw.
- 77 cross sectional.tw.
- 78 or/26-45
- 79 25 and 46
- 80 57 or 79

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all via the Ovid platform), NHS EED and the Health Technology Assessment Database (via the CRD platform). NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the MEDLINE version shown above) in the MEDLINE and Embase databases. The MEDLINE version of the filters is displayed below.

Economic evaluations

- 1. Economics/
- 2. exp "Costs and Cost Analysis"/
- 3. Economics, Dental/
- 4. exp Economics, Hospital/
- 5. exp Economics, Medical/
- 6. Economics, Nursing/
- 7. Economics, Pharmaceutical/
- 8. Budgets/
- 9. exp Models, Economic/
- 10. Markov Chains/
- 11. Monte Carlo Method/
- 12. Decision Trees/
- 13. econom\$.tw.
- 14. cba.tw.
- 15. cea.tw.

16. cua.tw.
17. markov\$.tw.
18. (monte adj carlo).tw.
19. (decision adj3 (tree\$ or analys\$)).tw.
20. (cost or costs or costing\$ or costly or costed).tw.
21. (price\$ or pricing\$).tw.
22. budget\$.tw.
23. expenditure\$.tw.
24. (value adj3 (money or monetary)).tw.
25. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
26. or/1-25

Quality of life

1. "Quality of Life"/
2. quality of life.tw.
3. "Value of Life"/
4. Quality-Adjusted Life Years/
5. quality adjusted life.tw.
6. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
7. disability adjusted life.tw.
8. daly\$.tw.
9. Health Status Indicators/
10. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
11. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
12. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
13. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
14. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
15. (euroqol or euro qol or eq5d or eq 5d).tw.
16. (qol or hql or hqol or hrqol).tw.
17. (hye or hyes).tw.
18. health\$ year\$ equivalent\$.tw.
19. utilit\$.tw.
20. (hui or hui1 or hui2 or hui3).tw.
21. disutili\$.tw.
22. rosser.tw.
23. quality of wellbeing.tw.
24. quality of well-being.tw.
25. qwb.tw.
26. willingness to pay.tw.
27. standard gamble\$.tw.
28. time trade off.tw.
29. time tradeoff.tw.
30. tto.tw.
31. or/1-30

A search of the MHRA was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Abalone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

1.5 Considering individual treatment factors when prescribing cannabis-based medicinal products

A single systematic search was conducted for all the questions within this review on 1st March 2019. The following databases were searched MEDLINE, MEDLINE in Process,

MEDLINE e pub Ahead of print, Embase, and PSYCINFO (all via the Ovid platform). The NICE inhouse qualitative filter was attached where appropriate.

The MEDLINE strategy is presented below. This was translated for other databases

- 1 Medical Marijuana/
- 2 cannabinoids/ or cannabidiol/ or cannabinol/ or cannabis/
- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDa.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.
- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language

- 26 Qualitative Research/
- 27 Nursing Methodology Research/
- 28 Interview.pt.
- 29 exp Interviews as Topic/
- 30 Questionnaires/
- 31 Narration/
- 32 Health Care Surveys/
- 33 (qualitative\$ or interview\$ or focus group\$ or questionnaire\$ or narrative\$ or narration\$ or survey\$).tw.
- 34 (ethno\$ or emic or etic or phenomenolog\$ or grounded theory or constant compar\$ or (thematic\$ adj4 analys\$) or theoretical sampl\$ or purposive sampl\$).tw.
- 35 (hermeneutic\$ or heidegger\$ or husser\$ or colaizzi\$ or van kaam\$ or van manen\$ or giorgi\$ or glaser\$ or strauss\$ or ricoeur\$ or spiegelberg\$ or merleau\$).tw.
- 36 (metasynthes\$ or meta-synthes\$ or metasummar\$ or meta-summar\$ or metastud\$ or meta-stud\$ or metathem\$ or meta-them\$).tw.
- 37 "critical interpretive synthes*".tw.
- 38 (realist adj (review* or synthes*)).tw.
- 39 (noblit and hare).tw.
- 40 (meta adj (method or triangulation)).tw.
- 41 (CERQUAL or CONQUAL).tw.
- 42 ((thematic or framework) adj synthes*).tw.
- 43 or/26-42
- 44 25 and 43

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all via the Ovid platform), NHS EED and the Health Technology Assessment Database (via the CRD platform). NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the MEDLINE version shown above) in the MEDLINE and Embase databases. The MEDLINE version of the filters is displayed below.

Economic evaluations

- 27. Economics/
- 28. exp "Costs and Cost Analysis"/
- 29. Economics, Dental/
- 30. exp Economics, Hospital/
- 31. exp Economics, Medical/
- 32. Economics, Nursing/
- 33. Economics, Pharmaceutical/

- 34. Budgets/
- 35. exp Models, Economic/
- 36. Markov Chains/
- 37. Monte Carlo Method/
- 38. Decision Trees/
- 39. econom\$.tw.
- 40. cba.tw.
- 41. cea.tw.
- 42. cua.tw.
- 43. markov\$.tw.
- 44. (monte adj carlo).tw.
- 45. (decision adj3 (tree\$ or analys\$)).tw.
- 46. (cost or costs or costing\$ or costly or costed).tw.
- 47. (price\$ or pricing\$).tw.
- 48. budget\$.tw.
- 49. expenditure\$.tw.
- 50. (value adj3 (money or monetary)).tw.
- 51. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
- 52. or/1-25

Quality of life

- 32. "Quality of Life"/
- 33. quality of life.tw.
- 34. "Value of Life"/
- 35. Quality-Adjusted Life Years/
- 36. quality adjusted life.tw.
- 37. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
- 38. disability adjusted life.tw.
- 39. daly\$.tw.
- 40. Health Status Indicators/
- 41. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
- 42. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
- 43. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
- 44. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
- 45. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
- 46. (euroqol or euro qol or eq5d or eq 5d).tw.
- 47. (qol or hql or hqol or hrqol).tw.
- 48. (hye or hyes).tw.
- 49. health\$ year\$ equivalent\$.tw.
- 50. utilit\$.tw.
- 51. (hui or hui1 or hui2 or hui3).tw.
- 52. disutili\$.tw.
- 53. rosser.tw.
- 54. quality of wellbeing.tw.

55. quality of well-being.tw.
56. qwb.tw.
57. willingness to pay.tw.
58. standard gamble\$.tw.
59. time trade off.tw.
60. time tradeoff.tw.
61. tto.tw.
62. or/1-30

A search of the MHRA website was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Nabilone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

A search for national and international guidance, regulation and policy was undertaken between 5th March 2019 and 28th March 2019. The NICE Evidence, TRIP, Health Departments of similar health systems which have licensed cannabis based medicines and Google websites were searched.

1.6 Supporting prescribers and patients to make decisions about cannabis-based medicinal products

A single systematic search was conducted for all the question within this review on 1st March 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, and PSYCINFO (all via the Ovid platform). The NICE inhouse qualitative filter was attached where appropriate.

The MEDLINE strategy is presented below. This was translated for other databases

- 1 Medical Marijuana/
- 2 cannabinoids/ or cannabidiol/ or cannabinol/ or cannabis/
- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.
- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.

- 16 CBDA.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.
- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Qualitative Research/
- 27 Nursing Methodology Research/
- 28 Interview.pt.
- 29 exp Interviews as Topic/
- 30 Questionnaires/
- 31 Narration/
- 32 Health Care Surveys/
- 33 (qualitative\$ or interview\$ or focus group\$ or questionnaire\$ or narrative\$ or narration\$ or survey\$).tw.
- 34 (ethno\$ or emic or etic or phenomenolog\$ or grounded theory or constant compar\$ or (thematic\$ adj4 analys\$) or theoretical sampl\$ or purposive sampl\$).tw.
- 35 (hermeneutic\$ or heidegger\$ or husser\$ or colaizzi\$ or van kaam\$ or van manen\$ or giorgi\$ or glaser\$ or strauss\$ or ricoeur\$ or spiegelberg\$ or merleau\$).tw.
- 36 (metasynthes\$ or meta-synthes\$ or metasummar\$ or meta-summar\$ or metastud\$ or meta-stud\$ or metathem\$ or meta-them\$).tw.
- 37 "critical interpretive synthes*".tw.
- 38 (realist adj (review* or synthes*)).tw.
- 39 (noblit and hare).tw.
- 40 (meta adj (method or triangulation)).tw.
- 41 (CERQUAL or CONQUAL).tw.
- 42 ((thematic or framework) adj synthes*).tw.
- 43 or/26-42

44 25 and 43

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all via the Ovid platform), NHS EED and the Health Technology Assessment Database (via the CRD platform). NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the MEDLINE version shown above) in the MEDLINE and Embase databases. The MEDLINE version of the filters is displayed below.

Economic evaluations

- 53. Economics/
- 54. exp "Costs and Cost Analysis"/
- 55. Economics, Dental/
- 56. exp Economics, Hospital/
- 57. exp Economics, Medical/
- 58. Economics, Nursing/
- 59. Economics, Pharmaceutical/
- 60. Budgets/
- 61. exp Models, Economic/
- 62. Markov Chains/
- 63. Monte Carlo Method/
- 64. Decision Trees/
- 65. econom\$.tw.
- 66. cba.tw.
- 67. cea.tw.
- 68. cua.tw.
- 69. markov\$.tw.
- 70. (monte adj carlo).tw.
- 71. (decision adj3 (tree\$ or analys\$)).tw.
- 72. (cost or costs or costing\$ or costly or costed).tw.
- 73. (price\$ or pricing\$).tw.
- 74. budget\$.tw.
- 75. expenditure\$.tw.
- 76. (value adj3 (money or monetary)).tw.
- 77. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
- 78. or/1-25

Quality of life

- 63. "Quality of Life"/
- 64. quality of life.tw.
- 65. "Value of Life"/
- 66. Quality-Adjusted Life Years/
- 67. quality adjusted life.tw.
- 68. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
- 69. disability adjusted life.tw.
- 70. daly\$.tw.
- 71. Health Status Indicators/
- 72. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.

73. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
74. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
75. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
76. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
77. (euroqol or euro qol or eq5d or eq 5d).tw.
78. (qol or hql or hqol or hrqol).tw.
79. (hye or hyes).tw.
80. health\$ year\$ equivalent\$.tw.
81. utilit\$.tw.
82. (hui or hui1 or hui2 or hui3).tw.
83. disutili\$.tw.
84. rosser.tw.
85. quality of wellbeing.tw.
86. quality of well-being.tw.
87. qwb.tw.
88. willingness to pay.tw.
89. standard gamble\$.tw.
90. time trade off.tw.
91. time tradeoff.tw.
92. tto.tw.
93. or/1-30

A search of the MHRA website was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Nabilone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

A search for national and international guidance, regulation and policy was undertaken between 5th March 2019 and 28th March 2019. The NICE Evidence, TRIP, Health Departments of similar health systems which have licensed cannabis based medicines and Google websites were searched.

1.7 Prescribing and monitoring

A single systematic search was conducted for all the question within this review on 1st March 2019. The following databases were searched MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Embase, and PSYCINFO (all via the Ovid platform). The NICE inhouse qualitative filter was attached where appropriate.

The MEDLINE strategy is presented below. This was translated for other databases

- 1 Medical Marijuana/
- 2 cannabinoids/ or cannabidiol/ or cannabinol/ or cannabis/
- 3 ((cannabi* or hemp or marijuana or marihuana) adj4 (medicine* or medicinal or medical or oil or oils or product* or extract* or therap* or CBD or vap* or spray* or inhal* or compound* or resin* or derivative*)).tw.
- 4 (epidiolex* or cannabidiol* or cannabinoid*).tw.
- 5 (sativex or nabiximols or tetrabinex or nabidiolex).tw.
- 6 (nabilone or cesamet).tw.
- 7 (tilray* or bedrocan* or bedrobinol* or bedica* or bediol* or bedrolite*).tw.
- 8 Dronabinol/
- 9 (dronabinol* or marinol* or syndros*).tw.

- 10 (9-ene-tetrahydrocannabinol* or 9enetetrahydrocannabinol*).tw.
- 11 (THC or tetrahydrocannabinol*).tw.
- 12 ("delta(1)-thc*" or "delta(1)-tetrahydrocannabinol*" or "delta(9)-thc*" or "delta(9)-tetrahydrocannabinol*").tw.
- 13 (9-delta-tetra-hydrocannabinol* or "9-delta-THC*" or "9 delta tetra hydrocannabinol*" or "9 delta THC*").tw.
- 14 (1-delta-tetra-hydrocannabinol* or "1-delta-THC*" or "1 delta tetra hydrocannabinol" or "1 delta thc*").tw.
- 15 THCa.tw.
- 16 CBDa.tw.
- 17 cannabinol*.tw.
- 18 cannabigerol*.tw.
- 19 cannabichromene*.tw.
- 20 (tetrahydrocannabivarin* or THCV).tw.
- 21 (cannabidivarin* or CBDV).tw.
- 22 or/1-21
- 23 animals/ not humans/
- 24 22 not 23
- 25 limit 24 to english language
- 26 Qualitative Research/
- 27 Nursing Methodology Research/
- 28 Interview.pt.
- 29 exp Interviews as Topic/
- 30 Questionnaires/
- 31 Narration/
- 32 Health Care Surveys/
- 33 (qualitative\$ or interview\$ or focus group\$ or questionnaire\$ or narrative\$ or narration\$ or survey\$).tw.
- 34 (ethno\$ or emic or etic or phenomenolog\$ or grounded theory or constant compar\$ or (thematic\$ adj4 analys\$) or theoretical sampl\$ or purposive sampl\$).tw.
- 35 (hermeneutic\$ or heidegger\$ or husser\$ or colaizzi\$ or van kaam\$ or van manen\$ or giorgi\$ or glaser\$ or strauss\$ or ricoeur\$ or spiegelberg\$ or merleau\$).tw.
- 36 (metasynthes\$ or meta-synthes\$ or metasummar\$ or meta-summar\$ or metastud\$ or meta-stud\$ or metathem\$ or meta-them\$).tw.

- 37 "critical interpretive synthes*".tw.
- 38 (realist adj (review* or synthes*)).tw.
- 39 (noblit and hare).tw.
- 40 (meta adj (method or triangulation)).tw.
- 41 (CERQUAL or CONQUAL).tw.
- 42 ((thematic or framework) adj synthes*).tw.
- 43 or/26-42
- 44 25 and 43

Searches to identify economic evidence were run on 20th December 2018 in MEDLINE, MEDLINE in Process, MEDLINE e pub Ahead of print, Econlit and Embase (all va the Ovid platform), NHS EED and the Health Technology Database (via the Wiley platform. NICE inhouse economic evaluation and Quality of Life filters were attached to lines 1 to 25 of the core strategy (lines 1 to 25 of the Medline version shown above) in the Medline and Embase databases. The Medline version of the filters is displayed below.

Economic evaluations

- 79. Economics/
- 80. exp "Costs and Cost Analysis"/
- 81. Economics, Dental/
- 82. exp Economics, Hospital/
- 83. exp Economics, Medical/
- 84. Economics, Nursing/
- 85. Economics, Pharmaceutical/
- 86. Budgets/
- 87. exp Models, Economic/
- 88. Markov Chains/
- 89. Monte Carlo Method/
- 90. Decision Trees/
- 91. econom\$.tw.
- 92. cba.tw.
- 93. cea.tw.
- 94. cua.tw.
- 95. markov\$.tw.
- 96. (monte adj carlo).tw.
- 97. (decision adj3 (tree\$ or analys\$)).tw.
- 98. (cost or costs or costing\$ or costly or costed).tw.
- 99. (price\$ or pricing\$).tw.
- 100. budget\$.tw.
- 101. expenditure\$.tw.
- 102. (value adj3 (money or monetary)).tw.
- 103. (pharmacoeconomic\$ or (pharmaco adj economic\$)).tw.
- 104. or/1-25

Quality of life

- 94. "Quality of Life"/
- 95. quality of life.tw.
- 96. "Value of Life"/
- 97. Quality-Adjusted Life Years/
- 98. quality adjusted life.tw.
- 99. (qaly\$ or qald\$ or qale\$ or qtime\$).tw.
- 100. disability adjusted life.tw.
- 101. daly\$.tw.
- 102. Health Status Indicators/
- 103. (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw.
- 104. (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw.
- 105. (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw.
- 106. (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw.
- 107. (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw.
- 108. (euroqol or euro qol or eq5d or eq 5d).tw.
- 109. (qol or hql or hqol or hrqol).tw.
- 110. (hye or hyes).tw.
- 111. health\$ year\$ equivalent\$.tw.
- 112. utilit\$.tw.
- 113. (hui or hui1 or hui2 or hui3).tw.
- 114. disutili\$.tw.
- 115. rosser.tw.
- 116. quality of wellbeing.tw.
- 117. quality of well-being.tw.
- 118. qwb.tw.
- 119. willingness to pay.tw.
- 120. standard gamble\$.tw.
- 121. time trade off.tw.
- 122. time tradeoff.tw.
- 123. tto.tw.
- 124. or/1-30

A search of the MHRA was undertaken on the 24th January 2019 to look for safety updates, alerts and recalls. The search terms are displayed below.

Sativex

Dronabinol

Epidiolex

Nabiximols

Nabilone

Tetrabinex

Nabidiolex

Cesamet

Tilray

Bedrocan

Bedrobinol

Bedica

Bediol

Bedrolite

Marinol

Syndros

THC

Tetrahydrocannabinol

Cannabinol

Cannibigerol

Cannabichromene

Tetrahydrocannabivarin

Cannabidivarin

A search for national and international guidance, regulation and policy was undertaken between 5th March 2019 and 28th March 2019. The NICE Evidence, TRIP, Health Departments of similar health systems which have licensed cannabis based medicines and Google websites were searched.

