

## Thyroid Cancer

### NICE guideline: search strategies

*NICE guideline NG196*

*Search strategies*

*April 2022*

*Draft for Consultation*

*This guideline was developed by the  
National Guideline Centre*



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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.

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# **Appendix A: Thyroid Cancer search strategies**

Thyroid cancer: assessment and management

Thyroid Cancer search strategies

Thyroid Cancer search strategies

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# 1 Clinical literature search strategies

The literature searches for these reviews are detailed below and complied with the methodology outlined in Developing NICE guidelines: the manual, 2014 (updated 2020) <https://www.nice.org.uk/process/pmg20/chapter/identifying-the-evidence-literature-searching-and-evidence-submission>.

For more information, please see the Methodology review published as part of the accompanying documents for this guideline.

## 1.1 1.1 & 1.4 Ultrasound (A)

This literature search strategy was used for the following review:

- What is the diagnostic accuracy of ultrasound for identifying thyroid nodule malignancies or nodules with malignant potential?

### 1.1.1 1.1 Ultrasound (A)

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 1: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 10 December 2021	Diagnostic studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 10 December 2021	Diagnostic studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)  Review type: Diagnostic

#### Medline (Ovid) search terms

1.	exp Thyroid Neoplasms/
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## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or aplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Ultrasonography/
29.	Elasticity Imaging Techniques/
30.	Endosonography/
31.	Microscopy, Acoustic/
32.	exp Ultrasonography, Doppler/
33.	exp Ultrasonography, Interventional/
34.	(ultrasonograph* or ultrasound* or ultra sound* or sonograph* or sonogram* or echograph* or echotomograph* or elastography* or elastosonograph* or sonoelastograph* or doppler or endosonograph* or acoustic microscop* or elasticity imag*).ti,ab.
35.	or/28-34
36.	27 and 35
37.	exp "sensitivity and specificity"/
38.	(sensitivity or specificity).ti,ab.
39.	((pre test or pretest or post test) adj probability).ti,ab.
40.	(predictive value* or PPV or NPV).ti,ab.
41.	likelihood ratio*.ti,ab.
42.	likelihood function/



43.	((area under adj4 curve) or AUC).ti,ab.
44.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
45.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness or precision or validat* or validity)).ti,ab.
46.	gold standard.ab.
47.	exp Diagnostic errors/
48.	(false positiv* or false negativ*).ti,ab.
49.	or/37-48
50.	36 and 49

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	*Echograph/
28.	*Elastograph/
29.	*Echography/
30.	*Elastography/
31.	*Endoscopic ultrasonography/
32.	*Microscopy, Acoustic/
33.	exp *Doppler Ultrasonography/

34.	*Interventional Ultrasonography/
35.	*Contrast-enhanced Ultrasound/ or exp *High Frequency Ultrasound/ or *Radiofrequency Echographic Multi Spectrometry/ or *Real Time Echography/ or exp *Three Dimensional Echography/
36.	(ultrasonograph* or ultrasound* or ultra sound* or sonograph* or sonogram* or echograph* or echotomograph* or elastography* or elastosonograph* or sonoelastograph* or doppler or endosonograph* or acoustic microscop* or elasticity imag*).ti,ab.
37.	or/27-36
38.	26 and 37
39.	exp "sensitivity and specificity"/
40.	(sensitivity or specificity).ti,ab.
41.	((pre test or pretest or post test) adj probability).ti,ab.
42.	(predictive value* or PPV or NPV).ti,ab.
43.	likelihood ratio*.ti,ab.
44.	((area under adj4 curve) or AUC).ti,ab.
45.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
46.	diagnostic accuracy/
47.	diagnostic test accuracy study/
48.	gold standard.ab.
49.	exp diagnostic error/
50.	(false positiv* or false negativ*).ti,ab.
51.	differential diagnosis/
52.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness or precision or validat* or validity or differential or error*)).ti,ab.
53.	or/39-52
54.	38 and 53

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4

## 1.1.2 1.4 Ultrasound Accuracy (A)

This literature search strategy was used for the following review:

- In people with thyroid nodules on ultrasound at initial presentation, for what size and classification is it clinically and cost effective to use active surveillance or discharge rather than biopsy?

This literature search strategy was used for the following review:

- What is the diagnostic accuracy of ultrasound for identifying thyroid nodule malignancies or nodules with malignant potential?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 2: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language

### Medline (Ovid) search terms

1.	(tumo?r* or node* or nodul* or nodal or lump* or swollen or swell* or sarcoma* or cyst* or classif* or size or grad* or circumference* or diameter* or shape* or U1 or U2 or U3 or U4 or U5 or EU Tirads).ti,ab.
2.	Thyroid Gland/
3.	thyroid.ti,ab.
4.	1 and (2 or 3)
5.	exp Thyroid Neoplasms/
6.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or aplastic or sarcoma* or cyst* or malignan*)).ti,ab.
7.	DTC.ti,ab.
8.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
9.	or/4-8
10.	letter/
11.	editorial/
12.	news/
13.	exp historical article/
14.	Anecdotes as Topic/
15.	comment/
16.	case report/
17.	(letter or comment*).ti.

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### Thyroid Cancer search strategies

18.	or/10-17
19.	randomized controlled trial/ or random*.ti,ab.
20.	18 not 19
21.	animals/ not humans/
22.	exp Animals, Laboratory/
23.	exp Animal Experimentation/
24.	exp Models, Animal/
25.	exp Rodentia/
26.	(rat or rats or mouse or mice or rodent*).ti.
27.	or/20-26
28.	9 not 27
29.	limit 28 to english language
30.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
31.	29 not 30
32.	Ultrasonography/
33.	Elasticity Imaging Techniques/
34.	Endosonography/
35.	Microscopy, Acoustic/
36.	exp Ultrasonography, Doppler/
37.	exp Ultrasonography, Interventional/
38.	(ultrasonograph* or ultrasound* or ultra sound* or sonograph* or sonogram* or echograph* or echotomograph* or elastography* or elastosonograph* or sonoelastograph* or doppler or endosonograph* or acoustic microscop* or elasticity imag*).ti,ab.
39.	or/32-38
40.	31 and 39
41.	Epidemiologic studies/
42.	Observational study/
43.	exp Cohort studies/
44.	(cohort adj (study or studies or analys* or data)).ti,ab.
45.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
46.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
47.	Controlled Before-After Studies/
48.	Historically Controlled Study/
49.	Interrupted Time Series Analysis/
50.	(before adj2 after adj2 (study or studies or data)).ti,ab.
51.	exp case control study/
52.	case control*.ti,ab.
53.	Cross-sectional studies/
54.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
55.	or/41-54
56.	40 and 55

### Embase (Ovid) search terms

## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

1.	(tumo?r* or node* or nodul* or nodal or lump* or swollen or swell* or sarcoma* or cyst* or classif* or size or grad* or circumference* or diameter* or shape* or U1 or U2 or U3 or U4 or U5 or EU Tirads).ti,ab.
2.	Thyroid Gland/
3.	thyroid.ti,ab.
4.	1 and (2 or 3)
5.	exp Thyroid Cancer/
6.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
7.	DTC.ti,ab.
8.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
9.	or/4-8
10.	letter.pt. or letter/
11.	note.pt.
12.	editorial.pt.
13.	case report/ or case study/
14.	(letter or comment*).ti.
15.	(conference abstract or conference paper).pt.
16.	or/10-15
17.	randomized controlled trial/ or random*.ti,ab.
18.	16 not 17
19.	animal/ not human/
20.	nonhuman/
21.	exp Animal Experiment/
22.	exp Experimental Animal/
23.	animal model/
24.	exp Rodent/
25.	(rat or rats or mouse or mice or rodent*).ti.
26.	or/18-25
27.	9 not 26
28.	limit 27 to english language
29.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
30.	28 not 29
31.	*Echograph/
32.	*Elastograph/
33.	*Echography/
34.	*Elastography/
35.	*Endoscopic ultrasonography/
36.	*Microscopy, Acoustic/
37.	exp *Doppler Ultrasonography/
38.	*Interventional Ultrasonography/
39.	*Contrast-enhanced Ultrasound/ or exp *High Frequency Ultrasound/ or *Radiofrequency Echographic Multi Spectrometry/ or *Real Time Echography/ or exp *Three Dimensional Echography/
40.	(ultrasonograph* or ultrasound* or ultra sound* or sonograph* or sonogram* or echograph* or echotomograph* or elastography* or elastosonograph* or

	sonoelastograph* or doppler or endosonograph* or acoustic microscop* or elasticity imag*).ti,ab.
41.	or/31-40
42.	30 and 41
43.	Clinical study/
44.	Observational study/
45.	family study/
46.	longitudinal study/
47.	retrospective study/
48.	prospective study/
49.	cohort analysis/
50.	follow-up/
51.	cohort*.ti,ab.
52.	50 and 51
53.	(cohort adj (study or studies or analys* or data)).ti,ab.
54.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
55.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
56.	(before adj2 after adj2 (study or studies or data)).ti,ab.
57.	exp case control study/
58.	case control*.ti,ab.
59.	cross-sectional study/
60.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
61.	or/43-49,52-60
62.	42 and 61

## 1.2 1.2 Blood Tests (B)

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 3: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies

Database	Dates searched	Search filters and limits applied
		Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumor?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumor?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Calcitonin/
29.	(calcitrin* or calcitoni* or cibalcin* or thyreocalcitonin* or thyrocalcitonin*).ti,ab,kf.

30.	exp Antibodies/
31.	exp Autoantibodies/
32.	Iodide Peroxidase/
33.	((antithyroid or thyroid or iodide) adj3 (antibod* or autoantibod*)).ti,ab,kf.
34.	((iodide or thyroid or antithyroid or autoantibod* or antibod*) adj3 (peroxidase* or oxidoreductase*)).ti,ab,kf.
35.	(thyroperoxidase* or deiodinase*).ti,ab,kf.
36.	(iodotyrosine adj2 (deiodase* or deiodinase* or desiodase*)).ti,ab,kf.
37.	(TPO or TPOAb).ti,ab,kf.
38.	or/28-37
39.	27 and 38
40.	randomized controlled trial.pt.
41.	controlled clinical trial.pt.
42.	randomi#ed.ab.
43.	placebo.ab.
44.	randomly.ab.
45.	clinical trials as topic.sh.
46.	trial.ti.
47.	or/40-46
48.	Meta-Analysis/
49.	Meta-Analysis as Topic/
50.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
51.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
52.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
53.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
54.	(search* adj4 literature).ab.
55.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
56.	cochrane.jw.
57.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
58.	or/48-57
59.	39 and (47 or 58)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/



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10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	Calcitonin/
28.	(calcitri* or calcitoni* or cibalcin* or thyreocalcitonin* or thyrocalcitonin*).ti,ab,kf.
29.	exp *Antibody/
30.	exp *Autoantibody/
31.	Iodide Peroxidase/
32.	((antithyroid or thyroid or iodide) adj3 (antibod* or autoantibod*)).ti,ab,kf.
33.	((iodide or thyroid or antithyroid or autoantibod* or antibod*) adj3 (peroxidase* or oxidoreductase)).ti,ab,kf.
34.	(thyroperoxidase* or deiodinase*).ti,ab,kf.
35.	(iodotyrosine adj2 (deiodase* or deiodinase* or desiodase*)).ti,ab,kf.
36.	(TPO or TPOAb).ti,ab,kf.
37.	or/27-36
38.	26 and 37
39.	random*.ti,ab.
40.	factorial*.ti,ab.
41.	(crossover* or cross over*).ti,ab.
42.	((doubl* or singl*) adj blind*).ti,ab.
43.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
44.	crossover procedure/
45.	single blind procedure/
46.	randomized controlled trial/
47.	double blind procedure/
48.	or/39-47
49.	systematic review/
50.	Meta-Analysis/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.

54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(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.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-58
60.	38 and (48 or 59)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Calcitonin] explode all trees
#7.	(calcitrin* or calcitoni* or cibalcin* or thyreocalcitonin* or thyrocalcitonin*):ti,ab
#8.	MeSH descriptor: [Antibodies] explode all trees
#9.	MeSH descriptor: [Autoantibodies] explode all trees
#10.	MeSH descriptor: [Iodide Peroxidase] explode all trees
#11.	((antithyroid or thyroid or iodide) near/3 (antibod* or autoantibod*)):ti,ab
#12.	((iodide or thyroid or antithyroid or autoantibod* or antibod*) near/3 (peroxidase* or oxidoreductase*)):ti,ab
#13.	(thyroperoxidase* or deiodinase*):ti,ab
#14.	(iodotyrosine near/2 (deiodase* or deiodinase* or desiodase*)):ti,ab
#15.	(TPO or TPOAb):ti,ab
#16.	(or #6-#15)
#17.	#5 and #16
#18.	conference:pt or (clinicaltrials or trialsearch):so
#19.	#17 not #18

## 1.3 1.3 Radioisotope (C)

This literature search strategy was used for the following review:

- What is the clinical and cost effectiveness of radioisotope scans for people with suspected thyroid cancer?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 4: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/

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20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Radionuclide Imaging/
29.	Lymphoscintigraphy/
30.	Perfusion imaging/
31.	Radioimmunodetection/
32.	((radionuclide* or radio nuclide* or gamma or radioisotope* or radioiodi?e* or radioiodi?e* or isotope* or perfusion) adj3 (scan* or scinti* or imag* or tracer* or tracing)).ti,ab.
33.	(lymphoscinti* or radioimmunodetect* or radioimmunoimag* or radioimmunoscinti* or radiolabel* immunoscinti*).ti,ab.
34.	exp Iodine Isotopes/
35.	Radioisotopes/
36.	Iodine Radioisotopes/
37.	(iodi?e adj2 (radioisotope* or isotope*)).ti,ab.
38.	(iodi?e 131 or 131-I or I-131).ti,ab.
39.	or/28-38
40.	27 and 39
41.	randomized controlled trial.pt.
42.	controlled clinical trial.pt.
43.	randomi#ed.ab.
44.	placebo.ab.
45.	randomly.ab.
46.	clinical trials as topic.sh.
47.	trial.ti.
48.	or/41-47
49.	Meta-Analysis/
50.	Meta-Analysis as Topic/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(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.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-58
60.	40 and (48 or 59)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	*scintiscanning/ or *scintigraphy/ or *gamma scintigraphy/ or *scintiangiography/ or scintiscanning/ or *thyroid scintiscanning/
28.	*lymphoscintigraphy/
29.	((radionuclide* or radio nuclide* or gamma or radioisotope* or radioiodi?e* or radio iodi?e* or isotope* or perfusion) adj3 (scan* or scinti* or imag* or tracer* or tracing)).ti,ab.
30.	(lymphoscinti* or radioimmunodetect* or radioimmunoimag* or radioimmunoscinti* or radiolabel* immunoscinti*).ti,ab.
31.	*radioisotope/
32.	*iodine 123/ or *iodine 124/ or *iodine 125/ or *iodine 129/ or *iodine 131/
33.	(iodi?e adj2 (radioisotope* or isotope*)).ti,ab.
34.	(iodi?e 131 or 131-I or I-131).ti,ab.
35.	or/27-34
36.	26 and 35
37.	random*.ti,ab.
38.	factorial*.ti,ab.
39.	(crossover* or cross over*).ti,ab.
40.	((doubl* or singl*) adj blind*).ti,ab.

41.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
42.	crossover procedure/
43.	single blind procedure/
44.	randomized controlled trial/
45.	double blind procedure/
46.	or/37-45
47.	systematic review/
48.	Meta-Analysis/
49.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
50.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
51.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
52.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
53.	(search* adj4 literature).ab.
54.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
55.	cochrane.jw.
56.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
57.	or/47-56
58.	36 and (46 or 57)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	conference:pt or (clinicaltrials or trialsearch):so
#7.	#5 not #6
#8.	MeSH descriptor: [Radionuclide Imaging] this term only
#9.	MeSH descriptor: [Lymphoscintigraphy] this term only
#10.	MeSH descriptor: [Perfusion Imaging] this term only
#11.	MeSH descriptor: [Radioimmunodetection] this term only
#12.	((radionuclide* or radio nuclide* or gamma or radioisotope* or radioiodi?e* or radio iodid?e* or isotope* or perfusion) near/3 (scan* or scinti* or imag* or tracer* or tracing)):ti,ab
#13.	(lymphoscinti* or radioimmunodetect* or radioimmunoimag* or radioimmunoscinti* or radiolabel* immunoscinti*):ti,ab
#14.	MeSH descriptor: [Iodine Isotopes] explode all trees
#15.	MeSH descriptor: [Radioisotopes] this term only
#16.	MeSH descriptor: [Iodine Radioisotopes] this term only
#17.	(iodi?e near/2 (radioisotope* or isotope*)):ti,ab
#18.	(or #8-#17)
#19.	#7 and #18

## 1.4 1.5 FNAC (D,E)

This literature search strategy was used for the following reviews:

- For people with thyroid nodules that require further investigation following ultrasound, what is the diagnostic accuracy of FNAC with rapid on-site assessment, FNAC without rapid on-site assessment or core biopsy for diagnosing thyroid cancer?
- For people with fine-needle aspiration samples showing benign cytology or non-diagnostic features but with US / clinical findings indicative of increased risk of malignancy, is it clinically and cost effective to use diagnostic hemithyroidectomy, repeat FNAC, use active surveillance or discharge?

Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 5: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies Diagnostic studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies Diagnostic studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)

Database	Dates searched	Search filters and limits applied
		English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	exp Biopsy, Needle/
29.	((needle or core or puncture) adj3 (aspirat* or biops* or cytology)).ti,ab.
30.	(FNAC or FNA or FNAB or FNB or FNC or CNB).ti,ab.
31.	or/28-30
32.	27 and 31
33.	randomized controlled trial.pt.
34.	controlled clinical trial.pt.
35.	randomi#ed.ab.
36.	placebo.ab.
37.	randomly.ab.
38.	clinical trials as topic.sh.



39.	trial.ti.
40.	or/33-39
41.	Meta-Analysis/
42.	Meta-Analysis as Topic/
43.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
44.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
45.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
46.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
47.	(search* adj4 literature).ab.
48.	(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.
49.	cochrane.jw.
50.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
51.	or/41-50
52.	Epidemiologic studies/
53.	Observational study/
54.	exp Cohort studies/
55.	(cohort adj (study or studies or analys* or data)).ti,ab.
56.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
57.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
58.	Controlled Before-After Studies/
59.	Historically Controlled Study/
60.	Interrupted Time Series Analysis/
61.	(before adj2 after adj2 (study or studies or data)).ti,ab.
62.	exp case control study/
63.	case control*.ti,ab.
64.	Cross-sectional studies/
65.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
66.	or/53-66
67.	exp "sensitivity and specificity"/
68.	(sensitivity or specificity).ti,ab.
69.	((pre test or pretest or post test) adj probability).ti,ab.
70.	(predictive value* or PPV or NPV).ti,ab.
71.	likelihood ratio*.ti,ab.
72.	likelihood function/
73.	((area under adj4 curve) or AUC).ti,ab.
74.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
75.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
76.	gold standard.ab.
77.	exp Diagnostic errors/
78.	(false positiv* or false negativ*).tw.
79.	or/70-81

80.	32 and (40 or 51 or 66 or 79)
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**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	exp Needle Biopsy/
28.	((needle or core or puncture) adj3 (aspirat* or biops* or cytology)).ti,ab.
29.	(FNAC or FNA or FNAB or FNB or FNC or CNB).ti,ab.
30.	or/27-29
31.	26 and 30
32.	random*.ti,ab.
33.	factorial*.ti,ab.
34.	(crossover* or cross over*).ti,ab.
35.	((doubl* or singl*) adj blind*).ti,ab.
36.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
37.	crossover procedure/
38.	single blind procedure/
39.	randomized controlled trial/
40.	double blind procedure/
41.	or/32-40

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### Thyroid Cancer search strategies

42.	systematic review/
43.	Meta-Analysis/
44.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
45.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
46.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
47.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
48.	(search* adj4 literature).ab.
49.	(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.
50.	cochrane.jw.
51.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
52.	or/42-51
53.	Clinical study/
54.	Observational study/
55.	family study/
56.	longitudinal study/
57.	retrospective study/
58.	prospective study/
59.	cohort analysis/
60.	follow-up/
61.	cohort*.ti,ab.
62.	61 and 62
63.	(cohort adj (study or studies or analys* or data).ti,ab.
64.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
65.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
66.	(before adj2 after adj2 (study or studies or data)).ti,ab.
67.	exp case control study/
68.	case control*.ti,ab.
69.	cross-sectional study/
70.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
71.	or/54-60,63-71
72.	exp "sensitivity and specificity"/
73.	(sensivity or specificity).ti,ab.
74.	((pre test or pretest or post test) adj probability).ti,ab.
75.	(predictive value* or PPV or NPV).ti,ab.
76.	likelihood ratio*.ti,ab.
77.	((area under adj4 curve) or AUC).ti,ab.
78.	(receive* operat* characteristic* or receive* operat* curve* or ROC curve*).ti,ab.
79.	diagnostic accuracy/
80.	diagnostic test accuracy study/
81.	gold standard.ab.
82.	exp diagnostic error/
83.	(false positiv* or false negativ*).ti,ab.

84.	differential diagnosis/
85.	(diagnos* adj3 (performance* or accurac* or utilit* or value* or efficien* or effectiveness or precision or validat* or validity or differential or error*)):ti,ab.
86.	or/75-88
87.	31 and (41 or 52 or 71 or 86)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Biopsy, Needle] explode all trees
#7.	(needle or core or puncture) near/3 (aspirat* or biops* or cytology):ti,ab
#8.	(FNAC or FNA or FNAB or FNB or FNC or CNB):ti,ab
#9.	#6 or #7 or #8
#10.	#5 and #9
#11.	conference:pt or (clinicaltrials or trialsearch):so
#12.	#10 not #11

**Epistemonikos search terms**

1.	(title:(title:(thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*)) OR abstract:(thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*))) AND (title:(needle OR puncture OR biops* OR aspirat*) OR abstract:(needle OR puncture OR biops* OR aspirat*))) OR abstract:(title:(thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*)) OR abstract:(thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*))) AND (title:(needle OR puncture OR biops* OR aspirat*) OR abstract:(needle OR puncture OR biops* OR aspirat*)))
----	--

**1.5 1.7 Molecular Testing (F)**

This literature search strategy was used for the following review:

- For people who have had fine-needle aspiration samples, where the FNAC sample was adequate but was not able to differentiate between benign and malignant samples, what is the clinical and cost effectiveness of molecular testing to diagnose or rule out thyroid cancer?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 6: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Molecular Diagnostic Techniques/
29.	Genetic Testing/
30.	Pharmacogenomic testing/
31.	(ThyroSeq or ThyGenX or ThyGeNEXT or ThyraMIR or Rosetta* or Afirma or ThyroSPEC or ThyroPrint or miRInform or AmpliSeq or mir-THYpe).ti,ab.
32.	((molecular or mutation* or gene or genetic or genom* or multigene* or pharmacogen*) adj3 (test* or diagnos* or technique* or analys* or marker* or biomarker* or profil* or assay* or panel* or classifi* or expression or sequenc*).ti,ab.
33.	(molecular adj (approach* or genetic* or characteri#ation or alteration* or signature* or abnormalit* or cytology or pathology or cytopathology)).ti,ab.
34.	((next generation or massive* parallel or high throughput) adj2 sequenc*).ti,ab.
35.	((DNA or RAS or KRAS or HRAS or BRAF* or B-RAF* or TERT or protooncogene* or oncogene*) adj5 mutat*).ti,ab.
36.	(RNA* or mRNA* or miRNA* or microRNA*).ti,ab.
37.	or/28-36
38.	27 and 37
39.	randomized controlled trial.pt.
40.	controlled clinical trial.pt.
41.	randomi#ed.ab.
42.	placebo.ab.
43.	randomly.ab.
44.	clinical trials as topic.sh.
45.	trial.ti.
46.	or/39-45
47.	Meta-Analysis/
48.	Meta-Analysis as Topic/
49.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
50.	((systematic* or evidence*) adj3 (review* or overview*).ti,ab.
51.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
52.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
53.	(search* adj4 literature).ab.

54.	(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.
55.	cochrane.jw.
56.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
57.	or/47-56
58.	38 and (46 or 57)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	Molecular diagnosis/
28.	Genetic screening/
29.	Pharmacogenetic testing/
30.	(ThyroSeq or ThyGenX or ThyGeNEXT or ThyraMIR or Rosetta* or Afirm* or ThyroSPEC or ThyroPrint or miRInform or AmpliSeq or mir-THYpe).ti,ab.
31.	((molecular or mutation* or gene or genetic or genom* or multigene* or pharmacogen*) adj3 (test* or diagnos* or technique* or analys* or marker* or biomarker* or profil* or assay* or panel* or classifi* or expression or sequenc*)).ti,ab.
32.	(molecular adj (approach* or genetic* or characteri#ation or alteration* or signature* or abnormalit* or cytology or pathology or cytopathology)).ti,ab.
33.	((next generation or massive* parallel or high throughput) adj2 sequenc*).ti,ab.

34.	((DNA or RAS or KRAS or HRAS or BRAF* or B-RAF* or TERT or protooncogene* or oncogene*) adj5 mutat*).ti,ab.
35.	(RNA* or mRNA* or miRNA* or microRNA*).ti,ab.
36.	or/27-35
37.	26 and 36
38.	random*.ti,ab.
39.	factorial*.ti,ab.
40.	(crossover* or cross over*).ti,ab.
41.	((doubl* or singl*) adj blind*).ti,ab.
42.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
43.	crossover procedure/
44.	single blind procedure/
45.	randomized controlled trial/
46.	double blind procedure/
47.	or/38-46
48.	systematic review/
49.	Meta-Analysis/
50.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
51.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
52.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
53.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
54.	(search* adj4 literature).ab.
55.	(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.
56.	cochrane.jw.
57.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
58.	or/48-57
59.	37 and (47 or 58)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Molecular Diagnostic Techniques] this term only
#7.	MeSH descriptor: [Genetic Testing] this term only
#8.	MeSH descriptor: [Pharmacogenomic Testing] this term only
#9.	(ThyroSeq or ThyGenX or ThyGeNEXT or ThyraMIR or Rosetta* or Afirm* or ThyroSPEC or ThyroPrint or miRInform or AmpliSeq or mir-THYpe):ti,ab
#10.	((molecular or mutation* or gene or genetic or genom* or multigene* or pharmacogen*) near/3 (test* or diagnos* or technique* or analys* or marker* or biomarker* or profil* or assay* or panel* or classifi* or expression or sequenc*)):ti,ab



#11.	(molecular next (approach* or genetic* or characteri?ation or alteration* or signature* or abnormalit* or cytology or pathology or cytopathology)):ti,ab
#12.	((generation or massive* parallel or high throughput) near/2 sequenc*):ti,ab
#13.	((DNA or RAS or KRAS or HRAS or BRAF* or B-RAF* or TERT or protooncogene* or oncogene*) near/5 mutat*):ti,ab
#14.	(RNA* or mRNA* or miRNA* or microRNA*):ti,ab
#15.	#6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14
#16.	#5 and #15
#17.	conference:pt or (clinicaltrials or trialsearch):so
#18.	#16 not #17

**Epistemonikos search terms**

1.	(title:(thyroid AND cancer* OR neoplasm* OR nodule* OR carcinoma*) OR abstract:(thyroid AND cancer* OR neoplasm* OR nodule* OR carcinoma*)) AND (title:(indeterminate OR nondiagnostic OR molecular OR mutation* OR ThyroSeq OR ThyGenX OR ThyGeNEXT OR ThyraMIR OR Rosetta* OR Afirma OR ThyroSPEC OR ThyroPrint OR miRInform OR AmpliSeq OR mir-THYpe OR RAS OR KRAS OR HRAS OR BRAF* OR B-RAF* OR TERT OR RNA* OR mRNA* OR miRNA* OR microRNA*) OR abstract:(indeterminate OR nondiagnostic OR molecular OR mutation* OR ThyroSeq OR ThyGenX OR ThyGeNEXT OR ThyraMIR OR Rosetta* OR Afirma OR ThyroSPEC OR ThyroPrint OR miRInform OR AmpliSeq OR mir-THYpe OR RAS OR KRAS OR HRAS OR BRAF* OR B-RAF* OR TERT OR RNA* OR mRNA* OR miRNA* OR microRNA*))
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**1.6 1.8 Imaging (G)**

This literature search strategy was used for the following review:

- What are the indications for using CT (with or without contrast), MRI, PET or bone scans for further staging?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 7: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies

Database	Dates searched	Search filters and limits applied
		Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22

## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Tomography/
29.	exp Tomography, Emission-Computed/
30.	exp Tomography, X-Ray/
31.	tomograph*.ti,ab,kf.
32.	tomodensitometry.ti,ab,kf.
33.	Magnetic Resonance Imaging/
34.	(MRI or NMRI).ti,ab,kf.
35.	((magnet* or MR or MTC or MT or NMR or spin or chemical shift or diffus* or perfusion) adj3 (imag* or scan* or resonance* or spectroscop*)).ti,ab,kf.
36.	Radionuclide Imaging/
37.	radionuclide imag*.ti,ab,kf.
38.	radiometry.ti,ab,kf.
39.	(scintigraph* or scintiphotograph* or scintiscan*).ti,ab,kf.
40.	exp Positron-Emission Tomography/
41.	exp Diffusion Magnetic Resonance Imaging/
42.	(Diffusion weighted or DWI).ti,ab,kf.
43.	(CT or MDCT or CAT or PET or PETCT or SPECT).ti,ab,kf.
44.	((bone* or radioisotop* or isotop* or gamma camera) adj3 (scan* or imag*)).ti,ab,kf.
45.	or/28-44
46.	27 and 45
47.	randomized controlled trial.pt.
48.	controlled clinical trial.pt.
49.	randomi#ed.ab.
50.	placebo.ab.
51.	randomly.ab.
52.	clinical trials as topic.sh.
53.	trial.ti.
54.	or/47-53
55.	Meta-Analysis/
56.	Meta-Analysis as Topic/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64

66.	46 and (54 or 65)
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**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	*tomography/
28.	exp *computer assisted tomography/ or exp *emission tomography/
29.	exp *whole body tomography/ or exp *x-ray tomography/
30.	tomograph*.ti,ab,kf.
31.	tomodensitometry.ti,ab,kf.
32.	*nuclear magnetic resonance imaging/ or *nuclear magnetic resonance/ or *functional magnetic resonance imaging/ or *interventional magnetic resonance imaging/ or *multiparametric magnetic resonance imaging/ or *perfusion weighted imaging/ or *whole body mri/
33.	(MRI or NMRI).ti,ab,kf.
34.	((magnet* or MR or MTC or MT or NMR or spin or chemical shift or diffus* or perfusion) adj3 (imag* or scan* or resonance* or spectroscop*)).ti,ab,kf.
35.	*radionuclide Imaging/
36.	radionuclide imag*.ti,ab,kf.
37.	radiometry.ti,ab,kf.

38.	*scintiscanning/ or exp *bone scintiscanning/ or exp *scintigraphy/ or *thyroid scintiscanning/ or *tumor scintiscanning/ or *whole body scintiscanning/
39.	(scintigraph* or scintiphotograph* or scintiscan*).ti,ab,kf.
40.	*positron emission tomography/ or *computer assisted emission tomography/ or *positron emission tomography-computed tomography/ or *whole body pet/
41.	*diffusion weighted imaging/
42.	(Diffusion weighted or DWI).ti,ab,kf.
43.	(CT or MDCT or CAT or PET or PETCT or SPECT).ti,ab,kf.
44.	((bone* or radioisotop* or isotop* or gamma camera) adj3 (scan* or imag*)).ti,ab,kf.
45.	or/27-44
46.	26 and 45
47.	random*.ti,ab.
48.	factorial*.ti,ab.
49.	(crossover* or cross over*).ti,ab.
50.	((doubl* or singl*) adj blind*).ti,ab.
51.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
52.	crossover procedure/
53.	single blind procedure/
54.	randomized controlled trial/
55.	double blind procedure/
56.	or/47-55
57.	systematic review/
58.	Meta-Analysis/
59.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
60.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
61.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
62.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
63.	(search* adj4 literature).ab.
64.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
65.	cochrane.jw.
66.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
67.	or/57-66
68.	46 and (56 or 67)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	conference:pt or (clinicaltrials or trialsearch):so
#7.	#5 not #6

#8.	MeSH descriptor: [Tomography] this term only
#9.	MeSH descriptor: [Tomography, Emission-Computed] explode all trees
#10.	MeSH descriptor: [Tomography, X-Ray] explode all trees
#11.	tomograph*:ti,ab
#12.	tomodensitometry:ti,ab
#13.	MeSH descriptor: [Magnetic Resonance Imaging] explode all trees
#14.	(MRI or NMRI):ti,ab
#15.	((magnet* or MR or MTC or MT or NMR or spin or chemical shift or diffus* or perfusion) near/3 (imag* or scan* or resonance* or spectroscop*)):ti,ab
#16.	MeSH descriptor: [Radionuclide Imaging] explode all trees
#17.	radionuclide imag*:ti,ab
#18.	radiometry:ti,ab
#19.	(scintigraph* or scintiphotograph* or scintiscan*):ti,ab
#20.	MeSH descriptor: [Positron-Emission Tomography] explode all trees
#21.	MeSH descriptor: [Diffusion Magnetic Resonance Imaging] explode all trees
#22.	(diffusion weighted or DWI):ti,ab
#23.	(CT or MDCT or CAT or PET or PETCT or SPECT):ti,ab
#24.	((bone* or radioisotop* or isotop* or gamma camera) near/3 (scan* or imag*)):ti,ab
#25.	(or #8-#24)
#26.	#7 and #25

**Epistemonikos search terms**

1.	(title:(title:(thyroid) OR abstract:(thyroid)) AND (title:(cancer* OR neoplasm* OR nodule* OR carcinoma*) OR abstract:(cancer* OR neoplasm* OR nodule* OR carcinoma*)) AND (title:(tomograph* OR tomodensitometry OR resonance imag* OR MRI OR NMRI OR Radionuclide Imag* OR radiometry OR scintigraph* OR scintiphotograph* OR scintiscan* OR DWI OR PET OR bone* scan*) OR abstract:(tomograph* OR tomodensitometry OR resonance imag* OR MRI OR NMRI OR Radionuclide Imag* OR radiometry OR scintigraph* OR scintiphotograph* OR scintiscan* OR DWI OR PET OR bone* scan*))) OR abstract:(title:(thyroid) OR abstract:(thyroid)) AND (title:(cancer* OR neoplasm* OR nodule* OR carcinoma*) OR abstract:(cancer* OR neoplasm* OR nodule* OR carcinoma*)) AND (title:(tomograph* OR tomodensitometry OR resonance imag* OR MRI OR NMRI OR Radionuclide Imag* OR radiometry OR scintigraph* OR scintiphotograph* OR scintiscan* OR DWI OR PET OR bone* scan*) OR abstract:(tomograph* OR tomodensitometry OR resonance imag* OR MRI OR NMRI OR Radionuclide Imag* OR radiometry OR scintigraph* OR scintiphotograph* OR scintiscan* OR DWI OR PET OR bone* scan*))))
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**1.7 2.1 Initial Treatment (H)**

This literature search strategy was used for the following review:

- For people with differentiated thyroid cancer, what is the clinical and cost effectiveness of active surveillance, hemi-thyroidectomy (with or without prophylactic or therapeutic node dissection) or total thyroidectomy (with or without prophylactic or therapeutic node dissection)?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are

rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 8: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or follicul* or medullar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Watchful Waiting/
29.	(active adj2 (surveillanc* or monitor* or observ*).ti,ab.
30.	"watchful* wait*" .ti,ab.
31.	((conservative or expect*) adj2 manag*).ti,ab.
32.	or/28-31
33.	27 and 32
34.	randomized controlled trial.pt.
35.	controlled clinical trial.pt.
36.	randomi#ed.ab.
37.	placebo.ab.
38.	randomly.ab.
39.	clinical trials as topic.sh.
40.	trial.ti.
41.	or/34-40
42.	Meta-Analysis/
43.	Meta-Analysis as Topic/
44.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
45.	((systematic* or evidence*) adj3 (review* or overview*).ti,ab.
46.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
47.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
48.	(search* adj4 literature).ab.



49.	(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.
50.	cochrane.jw.
51.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
52.	or/42-51
53.	Epidemiologic studies/
54.	Observational study/
55.	exp Cohort studies/
56.	(cohort adj (study or studies or analys* or data)).ti,ab.
57.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
58.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
59.	Controlled Before-After Studies/
60.	Historically Controlled Study/
61.	Interrupted Time Series Analysis/
62.	(before adj2 after adj2 (study or studies or data)).ti,ab.
63.	exp case control study/
64.	case control*.ti,ab.
65.	Cross-sectional studies/
66.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
67.	or/54-67
68.	33 and (41 or 52 or 67)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or follicul* or medullar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/

## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	Watchful Waiting/
28.	*Conservative treatment/
29.	(active adj2 (surveillanc* or monitor* or observ*)).ti,ab.
30.	"watchful* wait*" .ti,ab.
31.	((conservative or expect*) adj2 manag*).ti,ab.
32.	or/27-31
33.	26 and 32
34.	random*.ti,ab.
35.	factorial*.ti,ab.
36.	(crossover* or cross over*).ti,ab.
37.	((doubl* or singl*) adj blind*).ti,ab.
38.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
39.	crossover procedure/
40.	single blind procedure/
41.	randomized controlled trial/
42.	double blind procedure/
43.	or/34-42
44.	systematic review/
45.	Meta-Analysis/
46.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
47.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
48.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
49.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
50.	(search* adj4 literature).ab.
51.	(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.
52.	cochrane.jw.
53.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
54.	or/44-53
55.	Clinical study/
56.	Observational study/
57.	family study/
58.	longitudinal study/
59.	retrospective study/
60.	prospective study/
61.	cohort analysis/
62.	follow-up/

63.	cohort*.ti,ab.
64.	63 and 64
65.	(cohort adj (study or studies or analys* or data)).ti,ab.
66.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
67.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
68.	(before adj2 after adj2 (study or studies or data)).ti,ab.
69.	exp case control study/
70.	case control*.ti,ab.
71.	cross-sectional study/
72.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
73.	or/56-62,65-73
74.	33 and (43 or 54 or 73)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or follicul* or medullar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Thyroidectomy] explode all trees
#7.	(thyroidectom* or lobectom* or hemithyroidectom* or isthmusectom* or isthmectom*):ti,ab
#8.	(thyroid near/3 (surg* or operat* or remov*)):ti,ab
#9.	MeSH descriptor: [Watchful Waiting] explode all trees
#10.	(active near/2 (surveillanc* or monitor* or observ*)):ti,ab
#11.	watchful* wait*:ti,ab
#12.	((conservative or expect*) near/2 manag*):ti,ab
#13.	((initial or first) near/3 (care or caring or manag* or treatment* or therap*)):ti,ab
#14.	(or #6-#13)
#15.	#5 and #14
#16.	conference:pt or (clinicaltrials or trialsearch):so
#17.	#15 not #16

**Epistemonikos search terms**

1.	(title:(title:(title:(active surveillance) OR abstract:(active surveillance)) OR (title:(thyroidectomy) OR abstract:(thyroidectomy)) OR (title:(hemithyroidectomy) OR abstract:(hemithyroidectomy))) OR abstract:(title:(active surveillance) OR abstract:(active surveillance)) OR (title:(thyroidectomy) OR abstract:(thyroidectomy)) OR (title:(hemithyroidectomy) OR abstract:(hemithyroidectomy))) AND (title:(title:(thyroid cancer*) OR abstract:(thyroid cancer*)) OR (title:(thyroid neoplasm*) OR abstract:(thyroid neoplasm*))) OR abstract:(title:(thyroid cancer*) OR abstract:(thyroid cancer*)) OR (title:(thyroid neoplasm*) OR abstract:(thyroid neoplasm*))) OR abstract:(title:(title:(active surveillance) OR abstract:(active surveillance)) OR (title:(thyroidectomy) OR abstract:(thyroidectomy)) OR
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	(title:(hemithyroidectomy) OR abstract:(hemithyroidectomy))) OR abstract:(title:(active surveillance) OR abstract:(active surveillance)) OR (title:(thyroidectomy) OR abstract:(thyroidectomy)) OR (title:(hemithyroidectomy) OR abstract:(hemithyroidectomy))) AND (title:(title:(thyroid cancer*) OR abstract:(thyroid cancer*)) OR (title:(thyroid neoplasm*) OR abstract:(thyroid neoplasm*)) OR abstract:(title:(thyroid cancer*) OR abstract:(thyroid cancer*)) OR (title:(thyroid neoplasm*) OR abstract:(thyroid neoplasm*))))))
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## 1.8 3.1, 3.1c & 3.2 Radioactive Iodine (I,J,K)

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of radioactive iodine with thyrotropin alfa versus radioactive iodine with withdrawal of thyroid hormone replacement?
- What is the clinical and cost effectiveness of radioactive iodine (RAI) ablation/treatment versus no RAI ablation/treatment in different population groups, characterised by stage, type of differentiated cancer, existence of vascular infiltration and gender?
- What is the most clinically and cost-effective administered activity for people receiving radioactive iodine after thyroidectomy?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 9: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)

Database	Dates searched	Search filters and limits applied
		English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumor*r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or follicul* or medullar* or anaplastic) adj2 (cancer* or carcinom* or tumor*r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	exp radiotherapy/

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

27.	radiotherapy dosage/
28.	Iodine Radioisotopes/
29.	radioiodine.ti,ab.
30.	(iodi?e adj2 (radio* or isotope*)).ti,ab.
31.	(iodi?e 131 or 131-I or I-131).ti,ab.
32.	remnant ablation.ti,ab.
33.	(iodi?e adj2 (ablation or treatment* or therap* or medic* or procedure* or intervention*)).ti,ab.
34.	(RAA or RRA or RAI).ti,ab.
35.	or/26-34
36.	25 and 35
37.	randomized controlled trial.pt.
38.	controlled clinical trial.pt.
39.	randomi#ed.ab.
40.	placebo.ab.
41.	randomly.ab.
42.	clinical trials as topic.sh.
43.	trial.ti.
44.	or/37-43
45.	Meta-Analysis/
46.	Meta-Analysis as Topic/
47.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
48.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
49.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
50.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
51.	(search* adj4 literature).ab.
52.	(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.
53.	cochrane.jw.
54.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
55.	or/45-54
56.	Epidemiologic studies/
57.	Observational study/
58.	exp Cohort studies/
59.	(cohort adj (study or studies or analys* or data)).ti,ab.
60.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
61.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
62.	Controlled Before-After Studies/
63.	Historically Controlled Study/
64.	Interrupted Time Series Analysis/
65.	(before adj2 after adj2 (study or studies or data)).ti,ab.
66.	exp case control study/
67.	case control*.ti,ab.

68.	Cross-sectional studies/
69.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
70.	or/57-70
71.	36 and (44 or 55 or 70)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	exp radiotherapy/
28.	radiotherapy dosage/
29.	radioactive iodine/
30.	radioiodine.ti,ab.
31.	(iodi?e adj2 (radio* or isotope*)).ti,ab.
32.	iodine 131/
33.	(iodi?e 131 or 131-I or I-131).ti,ab.
34.	remnant ablation.ti,ab.
35.	(iodi?e adj2 (ablation or treatment* or therap* or medic* or procedure* or intervention*)).ti,ab.
36.	(RAA or RRA or RAI).ti,ab.
37.	or/27-36

38.	26 and 37
39.	random*.ti,ab.
40.	factorial*.ti,ab.
41.	(crossover* or cross over*).ti,ab.
42.	((doubl* or singl*) adj blind*).ti,ab.
43.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
44.	crossover procedure/
45.	single blind procedure/
46.	randomized controlled trial/
47.	double blind procedure/
48.	or/39-47
49.	systematic review/
50.	Meta-Analysis/
51.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
52.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
53.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
54.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
55.	(search* adj4 literature).ab.
56.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
57.	cochrane.jw.
58.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
59.	or/49-58
60.	Clinical study/
61.	Observational study/
62.	family study/
63.	longitudinal study/
64.	retrospective study/
65.	prospective study/
66.	cohort analysis/
67.	follow-up/
68.	cohort*.ti,ab.
69.	67 and 68
70.	(cohort adj (study or studies or analys* or data)).ti,ab.
71.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
72.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
73.	(before adj2 after adj2 (study or studies or data)).ti,ab.
74.	exp case control study/
75.	case control*.ti,ab.
76.	cross-sectional study/
77.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
78.	or/60-66,69-77
79.	38 and (48 or 59 or 78)



**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	conference:pt or (clinicaltrials or trialsearch):so
#7.	#5 not #6
#8.	MeSH descriptor: [Iodine Radioisotopes] explode all trees
#9.	MeSH descriptor: [Radiotherapy] explode all trees
#10.	MeSH descriptor: [Radiotherapy Dosage] this term only
#11.	radioiodine:ti,ab
#12.	((iodi?e) near/2 (radio* or isotope*)):ti,ab
#13.	(iodi?e-131 or I-131):ti,ab
#14.	remnant ablation:ti,ab
#15.	((iodi?e) near/2 (ablation or treatment* or therap* or medic* or procedure* or intervention*)):ti,ab
#16.	(RAA or RRA or RAI):ti,ab
#17.	(or #8-#16)
#18.	#7 and #17

**Epistemonikos search terms**

1.	(title:(remnant ablation OR RAI OR RRA OR RAA) OR abstract:(remnant ablation OR RAI OR RRA OR RAA)) OR (title:(thyroid AND (iodine OR iodide)) OR abstract:(thyroid AND (iodine OR iodide)))
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**1.9 3.3 External Beam (L)**

This literature search strategy was used for the following review:

- For people with residual, metastatic or recurrent thyroid cancer, what is the clinical and cost effectiveness of external beam radiotherapy?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 10: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies

Database	Dates searched	Search filters and limits applied
		Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 12 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or follicul* or medullar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	exp Radiotherapy/
29.	Radiotherap*.ti,ab.
30.	(radiation adj2 (therap* or treatment* or beam*)).ti,ab.
31.	((post-op* or postop* or intraop* or intra-op*) adj3 (radiation or irradiat* or reirradiat* or re-irradiat* or radiosurger*)).ti,ab.
32.	((external* or electron*) adj3 (radiation or therap* or irradiation* or beam*)).ti,ab.
33.	((radical or conformal or intensity modulated or volumetric modulated arc or stereotactic or four-dimensional or 4d or 4-d or three-dimensional or 3-d or 3d or image guided or neutron or proton*) adj3 (radiation or therap* or irradiat* or reirradiat* or re-irradiat* or treatment* or radiosurger*)).ti,ab.
34.	(EBRT or XRT or IMRT).ti,ab.
35.	or/28-34
36.	27 and 35
37.	randomized controlled trial.pt.
38.	controlled clinical trial.pt.
39.	randomi#ed.ab.
40.	placebo.ab.
41.	randomly.ab.
42.	clinical trials as topic.sh.
43.	trial.ti.
44.	or/37-43
45.	Meta-Analysis/
46.	Meta-Analysis as Topic/
47.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
48.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
49.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
50.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
51.	(search* adj4 literature).ab.
52.	(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.
53.	cochrane.jw.
54.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
55.	or/45-54
56.	Epidemiologic studies/
57.	Observational study/
58.	exp Cohort studies/
59.	(cohort adj (study or studies or analys* or data)).ti,ab.

60.	((follow up or observational or uncontrolled or non randomized or epidemiologic*) adj (study or studies or data)).ti,ab.
61.	((longitudinal or retrospective or prospective) and (study or studies or review or analysis* or cohort* or data)).ti,ab.
62.	Controlled Before-After Studies/
63.	Historically Controlled Study/
64.	Interrupted Time Series Analysis/
65.	(before adj2 after adj2 (study or studies or data)).ti,ab.
66.	exp case control study/
67.	case control*.ti,ab.
68.	Cross-sectional studies/
69.	(cross sectional and (study or studies or review or analysis* or cohort* or data)).ti,ab.
70.	or/57-70
71.	36 and (44 or 55 or 71)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid and (cancer* or carcinom* or microcarcinoma* or tumor?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or follicul* or medullar* or anaplastic) adj2 (cancer* or carcinom* or tumor?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	or/6-10
12.	randomized controlled trial/ or random*.ti,ab.
13.	11 not 12
14.	animal/ not human/
15.	nonhuman/
16.	exp Animal Experiment/
17.	exp Experimental Animal/
18.	animal model/
19.	exp Rodent/
20.	(rat or rats or mouse or mice or rodent*).ti.
21.	or/13-20
22.	5 not 21
23.	limit 22 to english language
24.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
25.	23 not 24
26.	exp radiotherapy/
27.	Radiotherap*.ti,ab.

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

28.	(radiation adj2 (therap* or treatment* or beam*)).ti,ab.
29.	((post-op* or postop* or intraop* or intra-op*) adj3 (radiation or irradiat* or reirradiat* or re-irradiat* or radiosurger*)).ti,ab.
30.	((external* or electron*) adj3 (radiation or therap* or irradiation* or beam*)).ti,ab.
31.	((radical or conformal or intensity modulated or volumetric modulated arc or stereotactic or four-dimensional or 4d or 4-d or three-dimensional or 3-d or 3d or image guided or neutron or proton*) adj3 (radiation or therap* or irradiat* or reirradiat* or re-irradiat* or treatment* or radiosurger*)).ti,ab.
32.	(EBRT or XRT or IMRT).ti,ab.
33.	exp external beam radiotherapy/
34.	or/26-33
35.	25 and 34
36.	limit 35 to (conference abstract or conference paper or conference review or conference proceeding)
37.	35 not 36
38.	random*.ti,ab.
39.	factorial*.ti,ab.
40.	(crossover* or cross over*).ti,ab.
41.	((doubl* or singl*) adj blind*).ti,ab.
42.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
43.	crossover procedure/
44.	single blind procedure/
45.	randomized controlled trial/
46.	double blind procedure/
47.	or/38-46
48.	systematic review/
49.	Meta-Analysis/
50.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
51.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
52.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
53.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
54.	(search* adj4 literature).ab.
55.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
56.	cochrane.jw.
57.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
58.	or/48-57
59.	Clinical study/
60.	Observational study/
61.	family study/
62.	longitudinal study/
63.	retrospective study/
64.	prospective study/
65.	cohort analysis/
66.	follow-up/
67.	cohort*.ti,ab.

68.	67 and 68
69.	(cohort adj (study or studies or analys* or data)).ti,ab.
70.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
71.	((longitudinal or retrospective or prospective or cross sectional) and (study or studies or review or analys* or cohort* or data)).ti,ab.
72.	(before adj2 after adj2 (study or studies or data)).ti,ab.
73.	exp case control study/
74.	case control*.ti,ab.
75.	cross-sectional study/
76.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
77.	or/60-66,69-77
78.	37 and (47 or 58 or 77)

### Cochrane Library (Wiley) search terms

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	thyroid and (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or follicul* or lymphoma* or anaplastic or sarcoma* or medullar* or cyst* or malignan*):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or follicul* or medullar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* or lymphoma*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Radiotherapy] explode all trees
#7.	Radiotherap*:ti,ab
#8.	(radiation NEAR/2 (therap* or treatment* or beam*)):ti,ab
#9.	((post-op* or postop* or intraop* or intra-op*) NEAR/3 (radiation or irradiat* or reirradiat* or re-irradiat* or radiosurger*)):ti,ab
#10.	((external* or electron*) NEAR/3 (radiation or therap* or irradiation* or beam*)):ti,ab
#11.	((radical or conformal or intensity modulated or volumetric modulated arc or stereotactic or four-dimensional or 4d or three-dimensional or 3d or image guided or neutron or proton*) NEAR/3 (radiation or therap* or irradiat* or reirradiat* or re-irradiat* or treatment* or radiosurger*)):ti,ab
#12.	(EBRT or XRT or IMRT):ti,ab
#13.	#6 or #7 or #8 or #9 or #10 or #11 or #12
#14.	#5 and #13
#15.	conference:pt or (clinicaltrials or trialsearch):so
#16.	#14 not #15

## 1.10 3.4a & 3.4b Thyroid stimulating hormone (M,N)

This literature search strategy was used for the following reviews:

- What is the clinical and cost effectiveness of TSH suppression versus no TSH suppression in different population groups, characterised by recurrence risk, ethnicity, gender and age?

- For people who have had thyroidectomy and radioactive iodine treatment for differentiated thyroid cancer, what is the most clinically and cost-effective length of treatment with drugs (such as levothyroxine) to suppress TSH to subnormal levels?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 11: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies Observational studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

### Medline (Ovid) search terms

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.

## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	exp Thyrotropin/
29.	(thyrotropin* or thyreotropin* or thyrotrophin* or thyrotropic).ti,ab.
30.	(thyroid stimulating adj2 hormone*).ti,ab.
31.	TSH.ti,ab.
32.	((thyroid or hormon*) adj4 (suppress* or lower*)).ti,ab.
33.	Thyroxine/
34.	(thyroxine or thyroxin or tetraiodothyronine or levothyroxine or Lthyroxine or T4 or LT4).ti,ab.
35.	Eltroxin.ti,ab.
36.	Triiodothyronine/
37.	(triiodothyronine or tri-iodothyronine or liothyronine or Ltriiodothyronine or T3 or LT3).ti,ab.
38.	Tertroxin.ti,ab.
39.	"Thyroid (USP)"/
40.	((thyroid or hormone*) adj2 (natural or desiccated or extract* or preparation*)).ti,ab.
41.	((porcine or pig) adj thyroid).ti,ab.
42.	(NDT or DTE).ti,ab.
43.	Armour.ti,ab.
44.	or/28-43
45.	27 and 44
46.	randomized controlled trial.pt.



47.	controlled clinical trial.pt.
48.	randomi#ed.ab.
49.	placebo.ab.
50.	randomly.ab.
51.	clinical trials as topic.sh.
52.	trial.ti.
53.	or/46-52
54.	Meta-Analysis/
55.	Meta-Analysis as Topic/
56.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
57.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
58.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
59.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
60.	(search* adj4 literature).ab.
61.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
62.	cochrane.jw.
63.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
64.	or/54-63
65.	Epidemiologic studies/
66.	Observational study/
67.	exp Cohort studies/
68.	(cohort adj (study or studies or analys* or data)).ti,ab.
69.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
70.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
71.	Controlled Before-After Studies/
72.	Historically Controlled Study/
73.	Interrupted Time Series Analysis/
74.	(before adj2 after adj2 (study or studies or data)).ti,ab.
75.	exp case control study/
76.	case control*.ti,ab.
77.	Cross-sectional studies/
78.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
79.	or/66-79
80.	45 and (53 or 64 or 79)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.

## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	exp Thyrotropin/
28.	(thyrotropin* or thyreotropin* or thyrotrophin* or thyrotropic).ti,ab.
29.	(thyroid stimulating adj2 hormone*).ti,ab.
30.	TSH.ti,ab.
31.	((thyroid or hormon*) adj4 (suppress* or lower*)).ti,ab.
32.	Thyroxine/
33.	(thyroxine or thyroxin or tetraiodothyronine or levothyroxine or Lthyroxine or T4 or LT4).ti,ab.
34.	Eltroxin.ti,ab.
35.	Liothyronine/
36.	(triiodothyronine or tri-iodothyronine or liothyronine or Ltriiodothyronine or T3 or LT3).ti,ab.
37.	Tertroxin.ti,ab.
38.	Thyroid Extract/
39.	((thyroid or hormone*) adj2 (natural or desiccated or extract* or preparation*)).ti,ab.
40.	((porcine or pig) adj thyroid).ti,ab.
41.	(NDT or DTE).ti,ab.
42.	Armour.ti,ab.
43.	or/27-42
44.	26 and 43
45.	random*.ti,ab.
46.	factorial*.ti,ab.
47.	(crossover* or cross over*).ti,ab.
48.	((doubl* or singl*) adj blind*).ti,ab.

49.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
50.	crossover procedure/
51.	single blind procedure/
52.	randomized controlled trial/
53.	double blind procedure/
54.	or/45-53
55.	Systematic Review/
56.	Meta-Analysis/
57.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
58.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
59.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
60.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
61.	(search* adj4 literature).ab.
62.	(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.
63.	cochrane.jw.
64.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
65.	or/55-64
66.	Clinical study/
67.	Observational study/
68.	Family study/
69.	Longitudinal study/
70.	Retrospective study/
71.	Prospective study/
72.	Cohort analysis/
73.	Follow-up/
74.	cohort*.ti,ab.
75.	74 and 75
76.	(cohort adj (study or studies or analys* or data)).ti,ab.
77.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
78.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
79.	(before adj2 after adj2 (study or studies or data)).ti,ab.
80.	exp case control study/
81.	case control*.ti,ab.
82.	cross-sectional study/
83.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
84.	or/67-73,76-84
85.	44 and (54 or 65 or 84)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab

#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	MeSH descriptor: [Thyrotropin] explode all trees
#7.	(thyrotropin* or thyreotropin* or thyrotrophin* or thyrotropic):ti,ab
#8.	(thyroid stimulating near/2 hormone*):ti,ab
#9.	TSH:ti,ab
#10.	((thyroid or hormon*) near/4 (suppress* or lower*)):ti,ab
#11.	MeSH descriptor: [Thyroxine] this term only
#12.	(thyroxine or thyroxin or tetraiodothyronine or levothyroxine or Lthyroxine or T4 or LT4):ti,ab
#13.	Eltroxin:ti,ab
#14.	MeSH descriptor: [Triiodothyronine] this term only
#15.	(triiodothyronine or tri-iodothyronine or liothyronine or Ltriiodothyronine or T3 or LT3):ti,ab
#16.	Tertroxin:ti,ab
#17.	MeSH descriptor: [Thyroid (USP)] this term only
#18.	((thyroid or hormone*) near/2 (natural or desiccated or extract* or preparation*)):ti,ab
#19.	((porcine or pig) next thyroid):ti,ab
#20.	(NDT or DTE):ti,ab
#21.	Armour:ti,ab
#22.	(or #6-#21)
#23.	#5 and #22
#24.	conference:pt or (clinicaltrials or trialsearch):so
#25.	#23 not #24

## 1.11 4.1 & 4.2 Measuring Thyroglobulin (O,P)

This literature search strategy was used for the following reviews:

- For people who have had thyroidectomy and radioactive iodine for differentiated thyroid cancer, what is the clinical and cost effectiveness of measuring thyroglobulin and thyroglobulin antibodies (with or without radioisotope scans) to assess residual or recurrent disease?
- For people who have had treatment for differentiated thyroid cancer, what is the clinical and cost effectiveness of using stimulated thyroglobulin or highly sensitive thyroglobulin assays, to re-assess risk of recurrence after initial treatment and to tailor their follow-up regimen?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 12: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

**Medline (Ovid) search terms**

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?*r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?*r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/

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### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	Thyroglobulin/
29.	(thyroglob* or thyreoglob* or thyrotrop* or thyreotrop* or thyractin).ti,ab.
30.	(thyroid stimulat* adj2 hormone*).ti,ab.
31.	(tsh or rhTSH).ti,ab.
32.	(thyroid adj2 (globulin* or globlin*)).ti,ab.
33.	or/28-32
34.	27 and 33
35.	randomized controlled trial.pt.
36.	controlled clinical trial.pt.
37.	randomi#ed.ab.
38.	placebo.ab.
39.	randomly.ab.
40.	clinical trials as topic.sh.
41.	trial.ti.
42.	or/35-41
43.	Meta-Analysis/
44.	Meta-Analysis as Topic/
45.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
46.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
47.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
48.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
49.	(search* adj4 literature).ab.
50.	(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.
51.	cochrane.jw.
52.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
53.	or/43-52
54.	34 and (42 or 53)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	thyroglobulin/ or thyroglobulin antibody/ or thyroglobulin blood level/
28.	(thyroglob* or thyreoglob* or thyrotrop* or thyreotrop* or thyraclin).ti,ab.
29.	(thyroid stimulat* adj2 hormone*).ti,ab.
30.	(tsh or rhTSH).ti,ab.
31.	(thyroid adj2 (globulin* or globlin*)).ti,ab.
32.	or/27-31
33.	26 and 32
34.	random*.ti,ab.
35.	factorial*.ti,ab.
36.	(crossover* or cross over*).ti,ab.
37.	((doubl* or singl*) adj blind*).ti,ab.
38.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
39.	crossover procedure/
40.	single blind procedure/
41.	randomized controlled trial/
42.	double blind procedure/
43.	or/34-42

44.	systematic review/
45.	Meta-Analysis/
46.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
47.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
48.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
49.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
50.	(search* adj4 literature).ab.
51.	(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.
52.	cochrane.jw.
53.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
54.	or/44-53
55.	33 and (43 or 54)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	conference:pt or (clinicaltrials or trialsearch):so
#7.	#5 not #6
#8.	MeSH descriptor: [Thyroglobulin] explode all trees
#9.	(thyroglob* or thyreoglob* or thyrotrop* or thyreotrop* or thyractin):ti,ab
#10.	(thyroid stimulat* near/2 hormone*):ti,ab
#11.	(tsh or rhTSH):ti,ab
#12.	(thyroid near/2 (globulin* or globlin*)):ti,ab
#13.	(or #8-#12)
#14.	#7 and #13

**Epistemonikos search terms**

1.	(title:(title:(thyroid) OR abstract:(thyroid)) AND (title:(cancer* OR neoplasm* OR nodule* OR carcinoma*) OR abstract:(cancer* OR neoplasm* OR nodule* OR carcinoma*)) AND (title:(thyroglob* OR thyreoglob* OR thyrotrop* OR thyreotrop* OR thyractin OR globulin* OR globlin* OR thyrid stimult* OR tsh OR rhTSH) OR abstract:(thyroglob* OR thyreoglob* OR thyrotrop* OR thyreotrop* OR thyractin OR globulin* OR globlin* OR thyrid stimult* OR tsh OR rhTSH))) OR abstract:(title:(thyroid) OR abstract:(thyroid)) AND (title:(cancer* OR neoplasm* OR nodule* OR carcinoma*) OR abstract:(cancer* OR neoplasm* OR nodule* OR carcinoma*)) AND (title:(thyroglob* OR thyreoglob* OR thyrotrop* OR thyreotrop* OR thyractin OR globulin* OR globlin* OR thyrid stimult* OR tsh OR rhTSH) OR abstract:(thyroglob* OR thyreoglob* OR thyrotrop* OR thyreotrop* OR thyractin OR globulin* OR globlin* OR thyrid stimult* OR tsh OR rhTSH)))
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## 1.12 4.3 Follow up (Q)

This literature search strategy was used for the following review:

- For people who have had treatment for differentiated thyroid cancer, what is the optimum frequency of follow-up according to the severity, spread of the disease and treatment given?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 13: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Randomised controlled trials Systematic review studies Observational Studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Randomised controlled trials Systematic review studies Observational Studies  Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
The Cochrane Library (Wiley)	Cochrane Database of Systematic Reviews to Issue 12 of 12, December 2021 Cochrane Central Register of Controlled Trials to Issue 12 of 12, December 2021	Exclusions (clinical trials, conference abstracts)
Epistemonikos (The Epistemonikos Foundation)	Inception – 13 January 2022	Systematic review  Exclusions (Cochrane reviews)  English language

### Medline (Ovid) search terms

1.	exp Thyroid Neoplasms/
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## Thyroid cancer: assessment and management

### Thyroid Cancer search strategies

### Thyroid Cancer search strategies

2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/
9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	((followup* or follow* up* or assess* or evaluat* or test* or retest* or screen* or surveillance or monitor* or check-up* or checkup* or measur* or examin* or recall* or visit* or revisit*) adj4 (interval* or frequen* or day* or week* or month* or year* or annual* or annum or time* or timing* or regular* or periodic* or ongoing or on-going or continu* or recurr* or repeat* or length or long-term or short-term or duration* or optimal or optimum or survivors or survivorship)).ti,ab.
29.	27 and 28
30.	randomized controlled trial.pt.
31.	controlled clinical trial.pt.
32.	randomi#ed.ab.
33.	placebo.ab.
34.	randomly.ab.
35.	clinical trials as topic.sh.
36.	trial.ti.
37.	or/30-36
38.	Meta-Analysis/
39.	Meta-Analysis as Topic/
40.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.

41.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
42.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
43.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
44.	(search* adj4 literature).ab.
45.	(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.
46.	cochrane.jw.
47.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
48.	or/38-47
49.	Epidemiologic studies/
50.	Observational study/
51.	exp Cohort studies/
52.	(cohort adj (study or studies or analys* or data)).ti,ab.
53.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
54.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
55.	Controlled Before-After Studies/
56.	Historically Controlled Study/
57.	Interrupted Time Series Analysis/
58.	(before adj2 after adj2 (study or studies or data)).ti,ab.
59.	exp case control study/
60.	case control*.ti,ab.
61.	Cross-sectional studies/
62.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
63.	or/50-63
64.	29 and (37 or 48 or 63)

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13

15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	((followup* or follow* up* or assess* or evaluat* or test* or retest* or screen* or surveillance or monitor* or check-up* or checkup* or measur* or examin* or recall* or visit* or revisit*) adj4 (interval* or frequen* or day* or week* or month* or year* or annual* or annum or time* or timing* or regular* or periodic* or ongoing or on-going or continu* or recurr* or repeat* or length or long-term or short-term or duration* or optimal or optimum or survivors or survivorship)).ti,ab.
28.	26 and 27
29.	random*.ti,ab.
30.	factorial*.ti,ab.
31.	(crossover* or cross over*).ti,ab.
32.	((doubl* or singl*) adj blind*).ti,ab.
33.	(assign* or allocat* or volunteer* or placebo*).ti,ab.
34.	crossover procedure/
35.	single blind procedure/
36.	randomized controlled trial/
37.	double blind procedure/
38.	or/29-37
39.	systematic review/
40.	Meta-Analysis/
41.	(meta analy* or metanaly* or metaanaly* or meta regression).ti,ab.
42.	((systematic* or evidence*) adj3 (review* or overview*)).ti,ab.
43.	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
44.	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
45.	(search* adj4 literature).ab.
46.	(medline or pubmed or cochrane or embase or psychlit or psychlit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
47.	cochrane.jw.
48.	((multiple treatment* or indirect or mixed) adj2 comparison*).ti,ab.
49.	or/39-48
50.	Clinical study/
51.	Observational study/
52.	family study/
53.	longitudinal study/
54.	retrospective study/

55.	prospective study/
56.	cohort analysis/
57.	follow-up/
58.	cohort*.ti,ab.
59.	58 and 59
60.	(cohort adj (study or studies or analys* or data)).ti,ab.
61.	((follow up or observational or uncontrolled or non randomi#ed or epidemiologic*) adj (study or studies or data)).ti,ab.
62.	((longitudinal or retrospective or prospective) and (study or studies or review or analys* or cohort* or data)).ti,ab.
63.	(before adj2 after adj2 (study or studies or data)).ti,ab.
64.	exp case control study/
65.	case control*.ti,ab.
66.	cross-sectional study/
67.	(cross sectional and (study or studies or review or analys* or cohort* or data)).ti,ab.
68.	or/51-57,60-68
69.	28 and (38 or 49 or 68)

**Cochrane Library (Wiley) search terms**

#1.	MeSH descriptor: [Thyroid Neoplasms] explode all trees
#2.	(thyroid near/3 (cancer* or carcinom* or microcarcinoma* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)):ti,ab
#3.	DTC:ti,ab
#4.	((papillar* or anaplastic) near/2 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)):ti,ab
#5.	#1 or #2 or #3 or #4
#6.	((followup* or follow* up* or assess* or evaluat* or test* or retest* or screen* or surveillance or monitor* or check-up* or checkup* or measur* or examin* or recall* or visit* or revisit*) NEAR/4 (interval* or frequen* or day* or week* or month* or year* or annual* or annum or time* or timing* or regular* or periodic* or ongoing or on-going or continu* or recurr* or repeat* or length or long-term or short-term or duration* or optimal or optimum or survivors or survivorship)):ti,ab
#7.	#5 and #6
#8.	conference:pt or (clinicaltrials or trialsearch):so
#9.	#7 NOT #8

**Epistemonikos search terms**

1.	(advanced_title_en:((thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*))) OR advanced_abstract_en:((thyroid AND (cancer* OR neoplasm* OR nodule* OR carcinoma*)))) AND (advanced_title_en:(((followup* OR follow* up* OR assess* OR evaluat* OR test* OR retest* OR screen* OR surveillance OR monitor* OR check-up* OR checkup* OR measur* OR examin* OR recall* OR visit* OR revisit*) AND (interval* OR frequen* OR day* OR week* OR month* OR year* OR annual* OR annum OR time* OR timing* OR regular* OR periodic* OR ongoing OR on-going OR continu* OR recurr* OR repeat* OR length OR long-term OR short-term OR duration* OR optimal OR optimum OR survivors OR survivorship))) OR advanced_abstract_en:(((followup* OR follow* up* OR assess* OR evaluat* OR test* OR retest* OR screen* OR surveillance OR monitor* OR check-up* OR checkup* OR measur* OR examin* OR recall* OR visit* OR revisit*) AND (interval* OR frequen* OR day* OR week* OR month* OR year* OR annual* OR annum OR time* OR timing* OR regular* OR periodic* OR ongoing OR on-going OR continu* OR recurr* OR repeat*
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OR length OR long-term OR short-term OR duration* OR optimal OR optimum OR survivors OR survivorship))))
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## 1.13 5.1 Information, education and support (R)

This literature search strategy was used for the following review:

- What information, education and support do people with suspected and confirmed thyroid cancer and their families and carers need?

Searches were constructed using a PICO framework where population (P) terms were combined with Intervention (I) and in some cases Comparison (C) terms. Outcomes (O) are rarely used in search strategies for interventions as these concepts may not be well described in title, abstract or indexes and therefore difficult to retrieve. Search filters were applied to the search where appropriate.

**Table 14: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	1946 – 13 January 2022	Exclusions (animal studies, letters, comments, editorials, case studies/reports, children)  English language
Embase (OVID)	1974 – 13 January 2022	Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts, children)  English language
Current Nursing and Allied Health Literature (CINAHL) (EBSCO)	Inception – 13 January 2022	Human  Exclusions (Medline records)  English Language
PsycINFO (OVID)	Inception – 13 January 2022	English language

### Medline (Ovid) search terms

1.	exp Thyroid Neoplasms/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumor?* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumor?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter/
7.	editorial/
8.	news/

9.	exp historical article/
10.	Anecdotes as Topic/
11.	comment/
12.	case report/
13.	(letter or comment*).ti.
14.	or/6-13
15.	randomized controlled trial/ or random*.ti,ab.
16.	14 not 15
17.	animals/ not humans/
18.	exp Animals, Laboratory/
19.	exp Animal Experimentation/
20.	exp Models, Animal/
21.	exp Rodentia/
22.	(rat or rats or mouse or mice or rodent*).ti.
23.	or/16-22
24.	5 not 23
25.	limit 24 to english language
26.	(exp child/ or exp pediatrics/ or exp infant/) not (exp adolescent/ or exp adult/ or exp middle age/ or exp aged/)
27.	25 not 26
28.	"patient acceptance of health care"/ or exp patient satisfaction/ or consumer health information/ or needs assessment/
29.	Patient Education as Topic/ or exp patients/ or exp family/ or caregivers/ or patient preference/ or communication barrier/
30.	((educat* or learn* or support* or teach* or train*) adj3 (service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*).ti,ab.
31.	((patient* or carer* or client* or user* or consumer* or caregiver* care giver* or famil* or parent* or father* or mother* or spouse* or wife or wives or husband* or next of kin or significant other* or partner* or guardian* or inpatient* or outpatient* or in patient* or out patient* or relative* or sibling* or sister* or brother* or grandparent* or grandfather* or grandmother*) adj3 (belief* or attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or preference* or focus group* or service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*).ti,ab.
32.	(information* adj3 (need* or requirement* or support* or seek* or access* or disseminat* or barrier* or service*).ti,ab.
33.	or/28-32
34.	27 and 33

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan*)).ti,ab.
3.	DTC.ti,ab.
4.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*)).ti,ab.
5.	or/1-4
6.	letter.pt. or letter/
7.	note.pt.
8.	editorial.pt.
9.	case report/ or case study/
10.	(letter or comment*).ti.
11.	(conference abstract or conference paper).pt.
12.	or/6-11
13.	randomized controlled trial/ or random*.ti,ab.
14.	12 not 13
15.	animal/ not human/
16.	nonhuman/
17.	exp Animal Experiment/
18.	exp Experimental Animal/
19.	animal model/
20.	exp Rodent/
21.	(rat or rats or mouse or mice or rodent*).ti.
22.	or/14-21
23.	5 not 22
24.	limit 23 to english language
25.	(exp child/ or exp pediatrics/) not (exp adult/ or exp adolescent/)
26.	24 not 25
27.	patient attitude/ or patient preference/ or patient satisfaction/ or consumer attitude/ or needs assessment/
28.	*patient information/ or *consumer health information/ or *family/ or *caregivers/
29.	communication barrier/ or *patient education/
30.	((educat* or learn* or support* or teach* or train*) adj3 (service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*)).ti,ab.
31.	((patient* or carer* or client* or user* or consumer* or caregiver* care giver* or famil* or parent* or father* or mother* or spouse* or wife or wives or husband* or next of kin or significant other* or partner* or guardian* or inpatient* or outpatient* or relative* or sibling* or sister* or brother* or grandparent* or grandfather* or grandmother*) adj3 (belief* or attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or preference* or focus group* or service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-



	mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*)).ti,ab.
32.	(information* adj3 (need* or requirement* or support* or seek* or access* or disseminat* or barrier* or service*)).ti,ab.
33.	or/27-32
34.	26 and 33

**CINAHL (EBSCO) search terms**

S1.	MH Thyroid Neoplasms
S2.	thyroid AND (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan* )
S3.	DTC
S4.	(papillar* or anaplastic) AND (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump* )
S5.	S1 OR S2 OR S3 OR S4
S6.	(client* or patient* or user* or carer* or consumer* or customer* or parent* or famil* or spouse*) AND ( attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or preference* or focus group* )
S7.	(educat* or learn* or support*) AND (service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster* or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*)
S8.	(patient* or carer* or caregiver* or famil* or parent* or father* or mother* or spouse* or wife or wives or husband* or next of kin or significant other* or partner* or guardian* or inpatient* or outpatient* ) AND ( service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster* or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*)
S9.	S6 OR S7 or S8
S10.	S5 AND S9

**PsycINFO search terms**

1.	neoplasms/ or endocrine neoplasms/
2.	exp thyroid disorders/ or exp thyroid gland/
3.	1 and 2
4.	(thyroid adj3 (cancer* or carcinom* or microcarcinoma* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or node* or nodul* or nodal or lump* or

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	papillar* or swollen or swell* or anaplastic or sarcoma* or cyst* or malignan* or hormone*).ti,ab.
5.	DTC.ti,ab.
6.	((papillar* or anaplastic) adj2 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nodul* or node* or lump*).ti,ab.
7.	exp thyroid hormones/ or exp thyroidectomy/ or thyrotropin/ or thyroxine/
8.	(thyroidectomy or thyrotropin* or thyroxine).ti,ab.
9.	or/3-8
10.	Letter/
11.	Case report/
12.	exp Rodents/
13.	or/10-12
14.	9 not 13
15.	limit 14 to (human and english language)
16.	qualitative methods/ or exp interviews/ or exp questionnaires/
17.	(qualitative or interview* or focus group* or theme* or questionnaire* or survey*).ti,ab.
18.	(metasynthes* or meta-synthes* or metasummar* or meta-summar* or metastud* or meta-stud* or metathem* or meta-them* or ethno* or emic or etic or phenomenolog* or grounded theory or constant compar* or (thematic* adj3 analys*) or theoretical sampl* or purposive sampl* or hermeneutic* or heidegger* or husserl* or colaizzi* or van kaam* or van manen* or giorgi* or glaser* or strauss* or ricoeur* or spiegelberg* or merleau*).ti,ab.
19.	or/16-18
20.	exp Caregivers/ or Client Satisfaction/ or Health Information/ or exp Needs Assessment/ or Client Attitudes/ or Client Education/ or communication barriers/
21.	((educat* or learn* or support* or teach* or train*) adj3 (service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*).ti,ab.
22.	((patient* or carer* or client* or user* or consumer* or caregiver* care giver* or famil* or parent* or father* or mother* or spouse* or wife or wives or husband* or next of kin or significant other* or partner* or guardian* or inpatient* or outpatient* or in patient* or out patient* or relative* or sibling* or sister* or brother* or grandparent* or grandfather* or grandmother*) adj3 (belief* or attitud* or priorit* or perception* or preferen* or expectation* or choice* or perspective* or view* or satisfact* or inform* or experience or experiences or opinion* or preference* or focus group* or service* or information* or material* or virtual* or app or apps or blog* or booklet* or brochure* or dvd* or elearn* or e-learn* or email* or e-mail* or e mail* or facebook or facetime or face time or forum* or handout* or hand-out* or hand out* or helpline* or hotline* or internet* or ipad* or iphone* or leaflet* or online or magazine* or mobile phone* or newsletter* or pamphlet* or palm pilot* or personal digital assistant* or pocket pc* or podcast* or poster? or skype* or smartphone* or smart phone* or social media or social network* or sms or text messag* or twitter or tweet* or video* or web* or wiki* or youtube* or manual* or publication* or literature or computer* or interactive or telephone* or phone*).ti,ab.
23.	or/20-22
24.	15 and (19 or 23)

## 2 Health Economics literature search strategy

Health economic evidence was identified by conducting searches using terms for a broad Thyroid Cancer population. The following databases were searched: NHS Economic Evaluation Database (NHS EED - this ceased to be updated after 31<sup>st</sup> March 2015), Health Technology Assessment database (HTA - this ceased to be updated from 31<sup>st</sup> March 2018) and The International Network of Agencies for Health Technology Assessment (INAHTA). Searches for recent evidence were run on Medline and Embase from 2014 onwards for health economics, and all years for quality-of-life studies.

**Table 2: Database parameters, filters and limits applied**

Database	Dates searched	Search filters and limits applied
Medline (OVID)	Health Economics 1 January 2014 – 16 December 2021	Health economics studies Quality of life studies
	Quality of Life 1946 – 16 December 2021	Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts)  English language
Embase (OVID)	Health Economics 1 January 2014 – 16 December 2021	Health economics studies Quality of life studies
	Quality of Life 1974 – 16 December 2021	Exclusions (animal studies, letters, comments, editorials, case studies/reports, conference abstracts)  English language
NHS Economic Evaluation Database (NHS EED) (Centre for Research and Dissemination - CRD)	Inception – 31 <sup>st</sup> March 2015	
Health Technology Assessment Database (HTA) (Centre for Research and Dissemination – CRD)	Inception – 31 <sup>st</sup> March 2018	
The International Network of Agencies for Health Technology Assessment (INAHTA)	Inception - 16 December 2021	English language

### Medline (Ovid) search terms

1.	exp Thyroid Neoplasms/
2.	(thyroid adj4 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or papillar* or follicul* or lymphoma* or anaplastic)).ti,ab.

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3.	((papillar* or follicul* or medullary or anaplastic) adj4 (cancer* or carcinom* or tumo?r* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or lymphoma*)).ti,ab.
4.	or/1-3
5.	letter/
6.	editorial/
7.	news/
8.	exp historical article/
9.	Anecdotes as Topic/
10.	comment/
11.	case report/
12.	(letter or comment*).ti.
13.	or/5-12
14.	randomized controlled trial/ or random*.ti,ab.
15.	13 not 14
16.	animals/ not humans/
17.	exp Animals, Laboratory/
18.	exp Animal Experimentation/
19.	exp Models, Animal/
20.	exp Rodentia/
21.	(rat or rats or mouse or mice).ti.
22.	or/15-21
23.	4 not 22
24.	limit 23 to english language
25.	economics/
26.	value of life/
27.	exp "costs and cost analysis"/
28.	exp Economics, Hospital/
29.	exp Economics, medical/
30.	Economics, nursing/
31.	economics, pharmaceutical/
32.	exp "Fees and Charges"/
33.	exp budgets/
34.	budget*.ti,ab.
35.	cost*.ti.
36.	(economic* or pharmaco?economic*).ti.
37.	(price* or pricing*).ti,ab.
38.	(cost* adj2 (effectiv* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
39.	(financ* or fee or fees).ti,ab.
40.	(value adj2 (money or monetary)).ti,ab.
41.	or/25-40
42.	24 and 41
43.	quality-adjusted life years/
44.	sickness impact profile/
45.	(quality adj2 (wellbeing or well being)).ti,ab.
46.	sickness impact profile.ti,ab.

47.	disability adjusted life.ti,ab.
48.	(qal* or qtime* or qwb* or daly*).ti,ab.
49.	(euroqol* or eq5d* or eq 5*).ti,ab.
50.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
51.	(health utility* or utility score* or disutilit* or utility value*).ti,ab.
52.	(hui or hui1 or hui2 or hui3).ti,ab.
53.	(health* year* equivalent* or hye or hyes).ti,ab.
54.	discrete choice*.ti,ab.
55.	rosser.ti,ab.
56.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
57.	(sf36* or sf 36* or short form 36* or shortform 36* or shortform36*).ti,ab.
58.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
59.	(sf12* or sf 12* or short form 12* or shortform 12* or shortform12*).ti,ab.
60.	(sf8* or sf 8* or short form 8* or shortform 8* or shortform8*).ti,ab.
61.	(sf6* or sf 6* or short form 6* or shortform 6* or shortform6*).ti,ab.
62.	or/52-70
63.	24 and 62

**Embase (Ovid) search terms**

1.	exp Thyroid Cancer/
2.	(thyroid adj4 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or papillar* or follicul* or lymphoma* or anaplastic)).ti,ab.
3.	((papillar* or follicul* or medullary or anaplastic) adj4 (cancer* or carcinom* or tumo?* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or lymphoma*)).ti,ab.
4.	or/1-3
5.	letter.pt. or letter/
6.	note.pt.
7.	editorial.pt.
8.	case report/ or case study/
9.	(letter or comment*).ti.
10.	or/5-9
11.	randomized controlled trial/ or random*.ti,ab.
12.	10 not 11
13.	animal/ not human/
14.	nonhuman/
15.	exp Animal Experiment/
16.	exp Experimental Animal/
17.	animal model/
18.	exp Rodent/
19.	(rat or rats or mouse or mice).ti.
20.	or/12-19
21.	4 not 20
22.	limit 21 to english language
23.	health economics/
24.	exp economic evaluation/

25.	exp health care cost/
26.	exp fee/
27.	budget/
28.	funding/
29.	budget*.ti,ab.
30.	cost*.ti.
31.	(economic* or pharmaco?economic*).ti.
32.	(price* or pricing*).ti,ab.
33.	(cost* adj2 (effectiv* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
34.	(financ* or fee or fees).ti,ab.
35.	(value adj2 (money or monetary)).ti,ab.
36.	or/23-35
37.	22 and 36
38.	quality-adjusted life years/
39.	"quality of life index"/
40.	short form 12/ or short form 20/ or short form 36/ or short form 8/
41.	sickness impact profile/
42.	(quality adj2 (wellbeing or well being)).ti,ab.
43.	sickness impact profile.ti,ab.
44.	disability adjusted life.ti,ab.
45.	(qal* or qtime* or qwb* or daly*).ti,ab.
46.	(euroqol* or eq5d* or eq 5*).ti,ab.
47.	(qol* or hql* or hqol* or h qol* or hrqol* or hr qol*).ti,ab.
48.	(health utility* or utility score* or disutilit* or utility value*).ti,ab.
49.	(hui or hui1 or hui2 or hui3).ti,ab.
50.	(health* year* equivalent* or hye or hyes).ti,ab.
51.	discrete choice*.ti,ab.
52.	rosser.ti,ab.
53.	(willingness to pay or time tradeoff or time trade off or tto or standard gamble*).ti,ab.
54.	(sf36* or sf 36* or short form 36* or shortform 36* or shortform36*).ti,ab.
55.	(sf20 or sf 20 or short form 20 or shortform 20 or shortform20).ti,ab.
56.	(sf12* or sf 12* or short form 12* or shortform 12* or shortform12*).ti,ab.
57.	(sf8* or sf 8* or short form 8* or shortform 8* or shortform8*).ti,ab.
58.	(sf6* or sf 6* or short form 6* or shortform 6* or shortform6*).ti,ab.
59.	or/37-58
60.	22 and 59

**NHS EED and HTA (CRD) search terms**

#1.	MeSH DESCRIPTOR Thyroid Neoplasms EXPLODE ALL TREES
#2.	((thyroid NEAR4 (cancer* or carcinom* or tumour* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or papillar* or follicul* or lymphoma* or anaplastic)))
#3.	((papillar* or follicul* or medullary or anaplastic) NEAR4 (cancer* or carcinom* or tumour* or tumor* or neoplasm* or metast* or adenoma* or adenocarcinom* or nod* or lump* or lymphoma*))
#4.	#1 OR #2 OR #3

**INHATA search terms**

## Thyroid cancer: assessment and management

Thyroid Cancer search strategies

Thyroid Cancer search strategies

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1.	(Thyroid Neoplasms)[mh] OR (thyroid neoplasms) AND (thyroid cancers)
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