

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

**Search Strategy**

---

- 1 Thyroid cancer.mp. (19981)
- 2 medullary.mp. (38465)
- 3 recurrent.mp. (246498)
- 4 surveillance.mp. (185746)
- 5 Positron-Emission Tomography/ (45667)
- 6 radioiodine.mp. (7922)
- 7 scintigraphy.mp. (37653)
- 8 ultra sound.mp. (544)
- 9 3 or 4 (429293)
- 10 6 or 7 (45032)
- 11 5 or 6 or 7 (89482)
- 12 Diagnostic Imaging/ (38583)
- 13 1 and 9 and 11 and 12 (13)
- 14 Multiple Endocrine Neoplasia Type 2a/ (1216)
- 15 Radiotherapy/ (40603)
- 16 Thyroid Neoplasms/ (44667)
- 17 Thyroidectomy/ (20488)
- 18 Carcinoma, Medullary/ (3172)
- 19 Hormone Replacement Therapy/ (9035)
- 20 14 and 15 and 16 and 17 and 18 and 19 (2)
- 21 Lymphatic Metastasis/ (81917)
- 22 Neoplasm Recurrence, Local/ (102596)
- 23 Radiopharmaceuticals/ (45093)
- 24 Thyroid Neoplasms/ (44667)
- 25 Tomography, X-Ray Computed/ (344599)
- 26 Whole-Body Counting/ (2618)
- 27 21 and 22 and 23 and 24 and 25 and 26 (2)
- 28 Fluorodeoxyglucose F18/ (25239)
- 29 5 and 16 and 18 and 25 and 28 and 23 (12)
- 30 Thyroid cancer, medullary.mp. (695)
- 31 5 and 16 and 18 and 23 and 28 and 30 (2)
- 32 indium-111-octreotide.mp. (208)
- 33 Carcinoma, Neuroendocrine/ (3440)
- 34 16 and 28 and 32 and 33 (1)
- 35 13 or 20 or 27 or 29 or 31 or 34 (30)
- 36 limit 35 to (abstracts and english language and humans and yr="2007 -Current") (19)
- 37 remove duplicates from 36 (17)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

**Search Strategy**

---

- 1 Thyroid cancer.mp. (19990)
- 2 recurrent.mp. (246622)
- 3 surveillance.mp. (185885)
- 4 well differentiated.mp. (19035)
- 5 papillary.mp. (61274)
- 6 follicular.mp. (62609)
- 7 4 or 5 or 6 (133938)
- 8 2 or 3 (429555)
- 9 Positron-Emission Tomography/ (45645)
- 10 1 and 7 and 8 and 9 (44)
- 11 Thyroid Neoplasms/ (44661)
- 12 Thyroid Nodule/ (4770)
- 13 Endocrinology/ (5468)
- 14 Consensus/ (7958)
- 15 11 and 12 and 13 and 14 (2)
- 16 Neck/ (27894)
- 17 Prognosis/ (442850)
- 18 Thyroglobulin/ (8084)
- 19 Thorax/ (20436)
- 20 11 and 16 and 17 and 18 and 19 (1)
- 21 Radionuclide Imaging/ (87446)
- 22 Iodine Radioisotopes/ (49365)
- 23 Whole Body Imaging/ (4118)
- 24 Neoplasm Staging/ (155036)
- 25 11 and 18 and 21 and 22 and 23 and 24 (4)
- 26 Neoplasm Recurrence, Local/ (102549)
- 27 Lymphatic Metastasis/ (81901)
- 28 11 and 21 and 23 and 26 and 27 (2)
- 29 Biomarkers, Tumor/ (117505)
- 30 Biopsy/ (159845)
- 31 9 and 11 and 18 and 22 and 23 and 26 and 29 and 30 (1)
- 32 Cell Differentiation/ (201791)
- 33 Tomography, Emission-Computed, Single-Photon/ (29091)
- 34 11 and 22 and 23 and 32 and 33 (2)
- 35 Thyroidectomy/ (20487)
- 36 Neoplasm Metastasis/ (94866)
- 37 11 and 18 and 21 and 22 and 35 and 36 (18)
- 38 Fluorodeoxyglucose F18/ (25235)
- 39 9 and 11 and 22 and 36 and 38 and 18 (8)
- 40 Radiopharmaceuticals/ (45084)
- 41 9 and 11 and 18 and 26 and 38 and 40 (18)
- 42 Adenocarcinoma, Follicular/ (3390)
- 43 9 and 11 and 22 and 23 and 38 and 40 and 42 (5)
- 44 9 and 11 and 18 and 22 and 23 and 38 (29)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

45 Recombinant Proteins/ (206167)  
46 9 and 11 and 35 and 38 and 40 and 42 and 45 (1)  
47 Carcinoma/ (84866)  
48 11 and 18 and 21 and 38 and 47 (2)  
49 1 and 9 and 11 and 18 and 38 and 45 and 47 (1)  
50 anti-thyroglobulin.mp. (1357)  
51 Neoplasm Recurrence, Local/ (102549)  
52 9 and 11 and 38 and 50 and 51 (6)  
53 Hypothyroidism/ (26122)  
54 Choristoma/ (8038)  
55 11 and 21 and 35 and 53 and 54 (1)  
56 Triiodothyronine/ (24913)  
57 11 and 21 and 53 and 56 (12)  
58 Adenoma, Oxyphilic/ (1913)  
59 11 and 22 and 33 and 35 and 42 and 58 (2)  
60 9 and 11 and 38 and 40 and 51 (60)  
61 10 or 15 or 20 or 25 or 28 or 31 or 34 or 37 or 39 or 41 or 43 or 44 or 46 or 48 or 49 or 52 or 55 or 57 or 59 or 60 (162)  
62 limit 61 to (abstracts and english language and humans and yr="2007 -Current") (103)  
63 limit 62 to case reports (11)  
64 62 not 63 (92)  
65 remove duplicates from 64 (89)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

1 Positron-Emission Tomography/ (45667)  
2 radioiodine.mp. (7922)  
3 Thyroid neoplasm/ (44667)  
4 Thyroid gland/ (55254)  
5 Ultrasonography/ (166528)  
6 Preoperative Care/ (57305)  
7 3 and 4 and 5 and 6 (15)  
8 Thyroid Carcinoma, Anaplastic/ (400)  
9 Prognosis/ (443019)  
10 3 and 4 and 8 and 9 (3)  
11 1 and 3 and 4 and 5 (19)  
12 Tomography, X-Ray Computed/ (344599)  
13 Fluorodeoxyglucose F18/ (25239)  
14 \*Carcinoma/dg, pa [Diagnostic Imaging, Pathology] (12540)  
15 Lymphatic Metastasis/ (81917)  
16 Thyroid cancer, papillary.mp. (2622)  
17 12 and 13 and 14 and 15 and 16 (8)  
18 5 and 12 and 13 and 14 and 15 and 16 (3)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

19 (Extrathyroid invasion and Positron emission tomography and Thyroid papillary carcinoma and Ultrasonography).mp.  
[mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol  
supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1)

20 (18F-fluorodeoxyglucose and differentiated thyroid cancer and positron emission tomography and radioiodine  
therapy).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word,  
protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2)

21 Neoplasm Metastasis/ (94891)

22 Thyroglobulin/ (8084)

23 1 and 2 and 12 and 13 and 21 and 22 (4)

24 Adenoma, Oxyphilic/ (1913)

25 3 and 9 and 12 and 13 and 22 and 24 (1)

26 Radiopharmaceuticals/ (45093)

27 3 and 13 and 24 and 26 (12)

28 Ki-67 Antigen/ (14622)

29 SLC2A1 protein, human.mp. (1340)

30 3 and 12 and 13 and 28 and 29 (1)

31 Thyrotropin/ (29410)

32 1 and 12 and 13 and 14 and 16 and 22 and 26 and 31 (1)

33 7 or 10 or 11 or 17 or 18 or 19 or 20 or 23 or 25 or 27 or 30 or 32 (67)

34 Technetium Tc 99m Sestamibi/ (5282)

35 Carcinoma, Papillary/ (14770)

36 Radionuclide Imaging/ (87446)

37 3 and 4 and 31 and 34 and 35 and 36 (1)

38 Neoplasm Invasiveness/ (69891)

39 3 and 12 and 13 and 38 (2)

40 3 and 12 and 14 (89)

41 Multimodal Imaging/ (10666)

42 Preoperative Care/ (57305)

43 Thyroid gland/ (55254)

44 40 and 41 and 42 and 43 (1)

45 Whole Body Imaging/ (4118)

46 Iodine Radioisotopes/ (49367)

47 3 and 22 and 36 and 45 and 46 (22)

48 7 or 10 or 11 or 17 or 18 or 19 or 20 or 23 or 25 or 27 or 32 or 33 or 37 or 39 or 40 or 44 or 47 (172)

49 limit 48 to (abstracts and english language and humans and yr="2007 -Current") (106)

50 limit 49 to case reports (35)

51 49 not 50 (71)

52 remove duplicates from 51 (68)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R)  
Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

1 thyroiditis/ (4414)

2 Positron-Emission Tomography/ (45645)

3 radioiodine.mp. (7923)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

- 4 scintigraphy.mp. (37665)
- 5 Diagnostic Imaging/ (38582)
- 6 ultra sound.mp. (544)
- 7 1 and (2 or 3 or 4 or 5 or 6) (134)
- 8 Thyroid Neoplasms/ (44661)
- 9 Neoplasm Invasiveness/ (69875)
- 10 Thyroidectomy/ (20487)
- 11 \*Fluorodeoxyglucose F18/ (12695)
- 12 Papillary Thyroid Microcarcinoma.mp. (503)
- 13 8 and 9 and 10 and 11 and 12 (1)
- 14 Thyroid gland/ (55248)
- 15 Incidental Findings/ (8285)
- 16 Breast neoplasm/ (256491)
- 17 1 and 2 and 11 and 14 and 16 (1)
- 18 Hashimoto Disease/ (2326)
- 19 Radiopharmaceuticals/ (45084)
- 20 2 and 8 and 11 and 14 and 18 and 19 (1)
- 21 Hyperthyroidism/ (25900)
- 22 Ultrasonography/ (166508)
- 23 8 and 11 and 14 and 19 and 21 and 22 (1)
- 24 Whole-Body Counting/ (2618)
- 25 1 and 11 and 14 and 19 and 22 and 24 (1)
- 26 Thyrotoxicosis/ (3937)
- 27 Radionuclide Imaging/ (87446)
- 28 Iodine Radioisotopes/ (49365)
- 29 Biological Transport/ (102809)
- 30 14 and 26 and 27 and 28 and 29 (1)
- 31 Jordan/ (3383)
- 32 14 and 18 and 21 and 27 and 28 and 29 and 31 (1)
- 33 (Graves disease and apparent diffusion coefficient and diffusion-weighted magnetic resonance imaging and painless thyroiditis and thyroid radioactive iodine uptake and thyroid scintigraphy and thyrotropin receptor antibody).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1)
- 34 Ultrasonography, Doppler, Color/ (13040)
- 35 Thyroiditis, Subacute/ (597)
- 36 34 and 35 (9)
- 37 (Diffuse thyroid uptake and Thyroid lobectomy and Thyroiditis).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1)
- 38 (postpartum thyroiditis and pregnancy and thyroid and pregnancy and thyroid function tests).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (28)
- 39 Tomography, X-Ray Computed/ (344571)
- 40 2 and 8 and 11 and 14 and 15 and 39 (5)
- 41 Iodide Peroxidase/ (4384)
- 42 2 and 11 and 14 and 18 and 19 and 41 (1)
- 43 7 or 13 or 17 or 20 or 23 or 25 or 30 or 32 or 36 or 40 or 42 (155)
- 44 limit 43 to (abstracts and english language and humans and yr="2007 -Current") (36)
- 45 33 or 37 or 38 or 44 (66)
- 46 limit 45 to case reports (15)
- 47 45 not 46 (51)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

48 remove duplicates from 47 (49)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

- 1 Hypothyroidism/ (26122)
- 2 Positron-Emission Tomography/ (45645)
- 3 radioiodine.mp. (7923)
- 4 scintigraphy.mp. (37665)
- 5 Diagnostic Imaging/ (38582)
- 6 ultra sound.mp. (544)
- 7 1 and (2 or 3 or 4 or 5 or 6) (598)
- 8 Thyroxine/ (36121)
- 9 Thyrotropin/ (29408)
- 10 Disease Management/ (28819)
- 11 Evidence-Based Medicine/ (66581)
- 12 1 and 8 and 9 and 10 and 11 (1)
- 13 (Chronic lymphocytic thyroiditis and diffuse thyroid fluorodeoxyglucose uptake and hypothyroidism and maximal standardized uptake value and positron emission tomography and serum thyroid).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1)
- 14 7 or 12 (599)
- 15 limit 14 to (abstracts and english language and humans and yr="2007 -Current") (120)
- 16 13 or 15 (121)
- 17 limit 16 to case reports (31)
- 18 16 not 17 (90)
- 19 remove duplicates from 18 (84)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

- 1 Hyperthyroidism/ (25900)
- 2 Positron-Emission Tomography/ (45645)
- 3 radioiodine.mp. (7923)
- 4 scintigraphy.mp. (37665)
- 5 Diagnostic Imaging/ (38582)
- 6 ultra sound.mp. (544)
- 7 1 and (2 or 3 or 4 or 5 or 6) (1269)
- 8 Thyroid Gland/ (55248)
- 9 Thyroid nodule/ (4770)
- 10 Thyrotropin/ (29408)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

- 11 8 and 9 and 10 (99)
- 12 Radionuclide Imaging/ (87446)
- 13 11 and 12 (16)
- 14 Thyrotoxicosis/ (3937)
- 15 Ultrasonography, Doppler, Color/ (13040)
- 16 Graves Disease/ (14756)
- 17 8 and 9 and 14 and 15 and 16 (1)
- 18 8 and 9 and 14 and 15 (1)
- 19 Thyroiditis, Autoimmune/ (6933)
- 20 1 and 8 and 19 (146)
- 21 Graves Disease/ (14756)
- 22 1 and 8 and 19 and 21 (40)
- 23 Tomography, Emission-Computed/ (24879)
- 24 15 and 21 and 23 (1)
- 25 1 and 8 and 9 and 16 and 15 (1)
- 26 Propylthiouracil/ (4118)
- 27 Antithyroid Agents/ (5769)
- 28 1 and 8 and 26 and 27 (23)
- 29 7 or 11 or 13 or 17 or 18 or 20 or 22 or 24 or 25 or 28 (1520)
- 30 limit 29 to (abstracts and english language and humans and yr="2007 -Current") (249)
- 31 limit 30 to case reports (39)
- 32 30 not 31 (210)
- 33 remove duplicates from 32 (200)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

- 1 Goiter/ (11822)
- 2 Positron-Emission Tomography/ (45645)
- 3 radioiodine.mp. (7923)
- 4 scintigraphy.mp. (37665)
- 5 Diagnostic Imaging/ (38582)
- 6 ultra sound.mp. (544)
- 7 1 and (2 or 3 or 4 or 5 or 6) (346)
- 8 Goiter, Nodular/ (3942)
- 9 exp Ultrasonography/ (393147)
- 10 Goiter, Substernal/ (922)
- 11 8 and 9 and 10 (2)
- 12 Biopsy, Fine-Needle/ (11649)
- 13 Diagnostic Techniques, Endocrine/ (786)
- 14 8 and 12 and 13 (3)
- 15 Goiter, Endemic/ (2605)
- 16 Thyroid Gland/ (55248)
- 17 Thyroid Neoplasms/ (44661)

**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

- 18 Thyroidectomy/ (20487)
- 19 8 and 9 and 16 and 17 and 18 and 12 (11)
- 20 7 or 11 or 14 or 19 (361)
- 21 limit 20 to (abstracts and english language and humans and yr="2007 -Current") (62)
- 22 limit 21 to case reports (13)
- 23 21 not 22 (49)
- 24 remove duplicates from 23 (47)

---

Literature Search Performed on: 06/09/2017

Beginning Date: January 2007

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

---

**Search Strategy**

- 1 (Thyroid and nodule).mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (8129)
- 2 Positron-Emission Tomography/ (45645)
- 3 radioiodine.mp. (7923)
- 4 scintigraphy.mp. (37665)
- 5 ultra sound.mp. (544)
- 6 Diagnostic Imaging/ (38582)
- 7 1 and (2 or 3 or 4 or 5 or 6) (953)
- 8 Radiopharmaceuticals/ (45084)
- 9 1 and 8 (245)
- 10 Thyroid Neoplasms/ (44661)
- 11 Incidental Findings/ (8285)
- 12 2 and 8 and 10 and 11 (40)
- 13 Fluorodeoxyglucose F18/ (25235)
- 14 Thyroidectomy/ (20487)
- 15 1 and 8 and 14 (36)
- 16 2 and 8 and 13 and 14 (51)
- 17 2 and 10 and 11 and 13 (63)
- 18 1 and 2 and 10 (89)
- 19 1 and 2 and 8 and 13 (56)
- 20 Neoplasm Invasiveness/ (69875)
- 21 2 and 13 and 14 and 20 (3)
- 22 Graves Disease/ (14756)
- 23 Hyperthyroidism/ (25900)
- 24 Radionuclide Imaging/ (87446)
- 25 Thyroiditis, Autoimmune/ (6933)
- 26 22 and 23 and 24 and 25 (7)
- 27 Radionuclide Angiography/ (1200)
- 28 Technetium Tc 99m Sestamibi/ (5282)
- 29 Ultrasonography, Doppler, Pulsed/ (1406)
- 30 1 and 8 and 27 and 28 and 29 (1)
- 31 Sodium Pertechnetate Tc 99m/ (3174)
- 32 Thyroid Diseases/ (16828)



**Literature Search**  
**ACR Appropriateness Criteria®**  
**Thyroid Disease**

33 Thyroid Gland/ (55248)  
34 8 and 31 and 32 and 33 (18)  
35 Tomography, Emission-Computed/ (24879)  
36 1 and 8 and 10 and 13 and 35 (9)  
37 7 or 9 or 12 or 15 or 16 or 17 or 18 or 19 or 21 or 26 or 30 or 34 or 36 (1139)  
38 limit 37 to (abstracts and english language and humans and yr="2007 -Current") (401)  
39 limit 38 to case reports (124)  
40 38 not 39 (277)  
41 remove duplicates from 40 (265)

**Summary**

Source	#Unique Refs	#Retained Refs
Old bibliography	0	0
Literature Search(es)	697	17
Author Added	62	21
Supporting Docs	2	2
Total		40

References from the literature search that were not retained had a poor study design, were not relevant to the topic, or had unclear or biased results.

2 of the author added references were outside the search date range.