

## Appendix 1

The specific search formula for this article.

### *PubMed*

((((((((((((((("Thyroid Neoplasms"[MeSH]) OR ("Thyroid Cancer, Papillary"[MeSH])) OR (thyroid carcinoma\*[Title/Abstract])) OR (thyroid cancer\*[Title/Abstract])) OR (papillary thyroid cancer\*[Title/Abstract])) OR (papillary thyroid carcinoma\*[Title/Abstract])) OR (papillary thyroid microcarcinoma[Title/Abstract])) OR (thyroid micropapillary carcinoma[Title/Abstract])) OR (papillary thyroid micro carcinoma[Title/Abstract])) OR (thyroid malignancy[Title/Abstract])) OR (dominant malignant nodules[Title/Abstract])) OR (malignant nodules[Title/Abstract])) OR (differentiated thyroid cancer\*[Title/Abstract])) OR (Familial Nonmedullary Thyroid Cancer\*[Title/Abstract])) OR (Nonmedullary Thyroid Carcinoma\*[Title/Abstract])) AND ((isthmus[Title/Abstract]) OR (isthmia[Title/Abstract])) AND (((((((("Surgical Procedures, Operative"[MeSH]) OR (Ghost Surgery[Title/Abstract])) OR (isthmusectomy[Title/Abstract])) OR (thyroidectomy[Title/Abstract])) OR (thyroid surgery[Title/Abstract])) OR (surgical management[Title/Abstract])) OR (General Surgery[Title/Abstract])) OR (surgical[Title/Abstract])) OR (operation[Title/Abstract])) OR (lobectomy[Title/Abstract]))

### *Cochrane Library*

#1 MeSH descriptor: [Thyroid Cancer, Papillary] explode all trees  
 #2 (Thyroid Neoplasms):ti,ab kw OR (thyroid carcinoma\*):ti,ab kw OR (thyroid cancer\*):ti, ab kw OR (papillary thyroid cancer\*):ti,ab kw OR (papillary thyroid carcinoma\*):ti ab,kw  
 #3 (papillary thyroid microcarcinoma):ti,ab,kw OR (thyroid micropapillary carcinoma):ti ab, kw OR (papillary thyroid micro carcinoma):ti ab,kw OR (thyroid malignancy) ti, ab kw OR (dominant malignant nodules):ti, ab kw  
 #4 (malignant nodules):ti, ab, kw OR (differentiated thyroid cancer\*): ti,ab,kw OR (Familial Nonmedullary Thyroid Cancer\*): ti,ab,kw OR (Nonmedullary Thyroid Carcinoma\*):ti,ab,kw  
 #5 #1OR#2OR#3OR#4  
 #6 (isthmus):ti.ab.kw OR (isthmia):ti.ab. kw  
 #7 MeSH descriptor: [Surgical Procedures, Operative] explode all trees  
 #8 (Ghost Surgery):ti,ab, kw OR (isthmusectomy):ti,ab, kw OR (thyroidectomy):ti,ab, kw OR (thyroid surgery) ti, ab, kw OR (surgical management):ti,ab, kw  
 #9 (General Surgery): tiab, kw OR (surgical):ti,ab, kw OR (operation): ti,ab, kw OR (lobectomy) ti,ab, kw  
 #10 #7OR#8OR#9  
 #11 #5AND#6AND#10

### *Web of Science*

#1 (((((((((((((TS=(Thyroid Neoplasms)) OR TS=(thyroid carcinoma\*)) OR TS=(papillary thyroid cancer\*)) OR TS=(papillary thyroid carcinoma\*)) OR TS=(papillary thyroid microcarcinoma)) OR TS=(thyroid micropapillary carcinoma)) OR TS=(papillary thyroid micro carcinoma)) OR TS=(thyroid malignancy)) OR TS=(dominant malignant nodules)) OR TS=(malignant nodules)) OR TS=(differentiated thyroid cancer\*)) OR TS=(Familial Nonmedullary Thyroid Cancer\*)) OR TS=(Nonmedullary Thyroid Carcinoma\*))  
 #2 (TS=(isthmus)) OR TS=(isthmia)  
 #3 (((((((((TS=(Surgical Procedures)) OR TS=(Ghost Surgery)) OR TS=(isthmusectomy)) OR TS=(thyroidectomy)) OR TS=(thyroid surgery)) OR TS=(surgical management)) OR TS=(General Surgery)) OR TS=(surgical) OR TS=(operation)) OR TS=(lobectomy)  
 #4 #1AND#2AND#3

*Embase*

#1 'thyroid papillary carcinoma'/exp  
#2 'thyroid neoplasms':ab,ti  
#3 'thyroid carcinoma':ab,ti  
#4 'thyroid cancer':ab,ti  
#5 'papillary thyroid cancer':ab,ti  
#6 'papillary thyroid carcinoma':ab,ti  
#7 'papillary thyroid microcarcinoma':ab,ti  
#8 'thyroid micropapillary carcinoma':ab,ti  
#9 'papillary thyroid micro carcinoma':ab,ti  
#10 'thyroid malignancy':ab,ti  
#11 'dominant malignant nodules':ab,ti  
#12 'malignant nodules':ab,ti  
#13 'differentiated thyroid cancer':ab,ti  
#14 'familial nonmedullary thyroid cancer':ab,ti  
#15 'nonmedullary thyroid carcinoma':ab,ti  
#16 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15  
#17 'isthmus':ab,ti  
#18 'isthmic':ab,ti  
#19 #17 OR #18  
#20 'surgery'/exp  
#21 'ghost surgery':ab,ti  
#22 'isthmusectomy':ab,ti  
#23 'thyroidectomy':ab,ti  
#24 'thyroid surgery':ab,ti  
#25 'surgical management':ab,ti  
#26 'general surgery':ab,ti  
#27 'surgical':ab,ti  
#28 'operation':ab,ti  
#29 'lobectomy':ab,ti  
#30 #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29  
#31 #16 AND #19 AND #30