**Supplementary file 1. Search strategy for PubMed**

#1 ((((("Thyroid Gland"[Mesh] ) OR (Gland, Thyroid)) OR (Glands, Thyroid)) OR (Thyroid Glands)) OR (Thyroid)) OR (Thyroids)

#2 ((((((((((((((((("Neoplasms"[Mesh]) OR (Tumor)) OR (Neoplasm)) OR (Tumors)) OR (Neoplasia)) OR (Neoplasias)) OR (Cancer)) OR (Cancers)) OR (Malignant Neoplasm)) OR (Malignancy)) OR (Malignancies)) OR (Malignant Neoplasms)) OR (Neoplasm, Malignant)) OR (Neoplasms, Malignant)) OR (Benign Neoplasms)) OR (Benign Neoplasm)) OR (Neoplasms, Benign)) OR (Neoplasm, Benign)

#3 #1 AND #2

#4 (("Lung"[Mesh]) OR (lungs)) OR (pulmonary)

#5 second primary

#6 #2 AND #4 AND #5

Combined set: #3 AND #6