

Electronic search strategy

1. We used a search strategy for randomized controlled trials (RCT) in Medline through Pubmed. The same search was then modified for RCT searches in other databases (Scopus, Controlled Cochrane Trial Register - CCTR).

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((("NSCLC"[tiab] OR "Carcinoma, Non-Small-Cell Lung"[Mesh] OR "lung"[tiab])) AND ("egfr"[tiab] OR "ErbB Receptors"[Mesh]) AND ("concurrent"[tiab] OR "concomitant"[tiab] OR "coexisting"[tiab])) AND "complex"[tiab])  
AND
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((("NSCLC"[tiab] OR "Carcinoma, Non-Small-Cell Lung"[Mesh] OR "lung"[tiab])) AND ("egfr"[tiab] OR "ErbB Receptors"[Mesh]) AND ("concurrent"[tiab] OR "concomitant"[tiab] OR "coexisting"[tiab]))
```

2. Cochrane Database search strategy

Search Name: Comutation

Comment:

ID	Search
#1	lung neoplasm
#2	NSCLC
#3	Non-small-cell lung cancer
#4	#1 OR #2 OR #3
#5	metastasis
#6	MeSH descriptor: [Neoplasm Metastasis] explode all trees
#7	recurrence
#8	advanced
#9	MeSH descriptor: [Recurrence] explode all trees
#10	stage IV
#11	Stage 4
#12	#5 OR #6 OR #7 OR #8 OR #9 OR #10
#13	EGFR
#14	MeSH descriptor: [Genes, erbB-1] explode all trees
#15	#13 OR #14
#16	concomitant
#17	concurrent
#18	coexisting
#19	#16 OR #17 OR #18
#20	#4 AND #12 AND #15 AND #19

3. We used the free text strategy “concurrent EGFR mutation in NSCLC”

4. We searched clinical trials and case reports for any other published data concerning concurrent EGFR mutation in the references cited. The strategy for RCT on-line searches in Clinical Trials registers (www.clinicaltrials.gov) ("egfr"[tiab] OR "ErbB Receptors"[Mesh]) AND ("concurrent"[tiab] OR "concomitant"[tiab] OR "coexisting"[tiab]))