

**Supplementary appendix for “Live cumulative network meta-analysis: protocol for second-line treatments in advanced non-small cell lung cancer with wild-type or unknown status for epidermal growth factor receptor”**

Appendix 1: Different types of eligible second-line treatments\*

Monochemotherapy	Targeted therapy
Amrubicin CC-486 Docetaxel Entinostat Nab-paclitaxel Paclitaxel Pemetrexed Pralatrexate Tegafur-Uracil Topotecan Vinflunine Vinorelbine Vorinostat	Aflibercept Afatinib Atezolizumab Avelumab AXL1717 Baviximab Bevacizumab BMS-690514 Cetuximab Dacomitinib Dalotuzumab (MK-0646) Durvalumab Erlotinib Everolimus Figitumumab Fulvestrant Gefitinib Icotinib Matuzumab Nimotuzumab Nintedanib (BIBF1120) Nivolumab Onartuzumab Patritumab Pazopanib Pembrolizumab PX-866 R1507 Ramucirumab Selumetinib Sorafenib Sunitinib Tamoxifen Tivantinib (ARQ 197) Trametinib Tremelimumab Vandetanib XL184

\* Treatments identified on May, 2016 through our previous work (Crequit P. BMC Med 2016;14(1):8) and by searching ongoing trials in our condition on clinicaltrials.gov.

## Appendix 2: Search equations

All databases will be searched using both controlled vocabulary (namely MeSH in MEDLINE and Emtree in EMBASE) and a wide range of free-text terms. The search of MEDLINE will be performed using the Cochrane highly sensitive search strategy. The search of EMBASE will be performed according to the search filter for identifying randomized trials described in the Cochrane Handbook for Systematic Reviews of Interventions (Chapter 6.3.2.2).

### MEDLINE (accessed via PubMed) and CENTRAL

Patients		
Lung cancer	#1	lung neoplasms[MeSH] OR carcinoma, non small cell lung[MeSH] OR lung carcinom*[tiab] OR lung neoplasm*[tiab] OR lung cancer[tiab] OR NSCLC[tiab] OR non small cell lung[tiab]
Advanced	#2	"Neoplasm Metastasis"[MeSH] OR advanced[tiab] OR stage IV[tiab] OR stage 4[tiab] OR stage four[tiab] OR metastatic[tiab] OR metastases[tiab]
Intervention		
Chemotherapy	#3	chemotherapy[tiab] OR chemotherapies[tiab] OR docetaxel[tiab] OR taxotere[tiab] OR "docetaxel"[Supplementary Concept] OR pemetrexed[tiab] OR alimta[tiab] OR "pemetrexed"[Supplementary Concept] OR gemcitabine[tiab] OR "gemcitabine"[Supplementary Concept] OR vinorelbine[tiab] OR "vinorelbine"[Supplementary Concept] OR paclitaxel[tiab] OR "Paclitaxel"[MeSH] OR "Vinblastine"[Supplementary Concept] OR vinblastine[tiab] OR "Ifosfamide"[MeSH] OR Ifosfamide[tiab] OR "irinotecan"[Supplementary Concept] OR irinotecan[tiab] OR "Mitomycin"[MeSH] OR mitomycin[tiab] OR vindesine[tiab] OR "Vindesine"[MeSH]
EGFR Targeted therapy	#4	"protein kinase inhibitors"[MeSH] OR "kinase inhibitor"[tiab] OR "kinase inhibitors"[tiab] OR gefitinib[tiab] OR iressa[tiab] OR "gefitinib"[Supplementary Concept] OR erlotinib[tiab] OR tarceva[tiab] OR "erlotinib"[Supplementary Concept] OR "icotinib"[Supplementary Concept] OR "icotinib"[tiab] OR afatinib[tiab] OR "BIBW 2992" [Supplementary Concept] OR "cetuximab"[Supplementary Concept] OR cetuximab[tiab]
VEGF targeted therapy	#5	bevacizumab[tiab] OR "bevacizumab"[Supplementary Concept] OR "vandetanib"[tiab] OR sunitinib[tiab] OR "sunitinib"[Supplementary Concept] OR sorafenib[tiab] OR "sorafenib"[Supplementary Concept] OR Ramucirumab[tiab] OR "ramucirumab"[Supplementary Concept] OR "nintedanib"[Supplementary Concept] OR nintedanib[tiab]
Second line	#6	second line[tiab] OR pretreat*[tiab] OR previously treated[tiab] OR refractory[tiab] OR recurrent[tiab]
Cochrane Highly Sensitive Search Strategy	#7	(randomized controlled trial[Publication Type] OR controlled clinical trial[Publication Type] OR randomized[tiab] OR placebo[tiab] OR drug therapy[sh] OR randomly[tiab] OR trial[tiab] OR groups[tiab]) NOT (animals[mh] NOT humans[mh])
Search equation	#8	#1 AND #2 AND (#3 OR #4 OR #5) AND #6 AND #7

## EMBASE

Patients		
Lung cancer	#1	'lung tumor'/exp OR 'non small cell lung cancer'/exp OR (lung NEXT/1 carcinom*):ab,ti OR (lung NEXT/1 neoplasm*):ab,ti OR 'lung cancer':ab,ti OR nsclc:ab,ti OR 'non small cell lung':ab,ti
Advanced	#2	'metastasis'/exp OR advanced:ab,ti OR 'stage IV':ab,ti OR 'stage 4':ab,ti OR 'stage four':ab,ti OR metastatic:ab,ti OR metastases:ab,ti
Intervention		
Chemotherapy	#3	'chemotherapy':ab,ti OR 'chemotherapies':ab,ti OR docetaxel:ab,ti OR taxotere:ab,ti OR 'docetaxel'/exp OR pemetrexed:ab,ti OR alimta:ab,ti OR 'pemetrexed'/exp OR gemcitabine:ab,ti OR 'gemcitabine'/exp OR vinorelbine:ab,ti OR 'navelbine'/exp OR paclitaxel:ab,ti OR 'paclitaxel'/exp OR 'vinblastine'/exp OR vinblastine:ab,ti OR 'ifosfamide'/exp OR ifosfamide:ab,ti OR 'irinotecan'/exp OR irinotecan:ab,ti OR 'mitomycin'/exp OR mitomycin:ab,ti OR vindesine:ab,ti OR 'vindesine'/exp
EGFR Targeted therapy	#4	'protein kinase inhibitor'/exp OR 'kinase inhibitors':ab,ti OR 'kinase inhibitor':ab,ti OR gefitinib:ab,ti OR irtasa:ab,ti OR 'gefitinib'/exp OR erlotinib:ab,ti OR tarceva:ab,ti OR 'erlotinib'/exp OR 'icotinib'/exp OR icotinib:ab,ti OR afatinib:ab,ti OR 'afatinib'/exp OR 'bibw 2992':ab,ti OR 'cetuximab'/exp OR cetuximab:ab,ti
VEGF targeted therapy	#5	bevacizumab:ab,ti OR 'bevacizumab'/exp OR vandetanib:ab,ti OR 'vandetanib'/exp OR sunitinib:ab,ti OR 'sunitinib'/exp OR sorafenib:ab,ti OR 'sorafenib'/exp OR ramucirumab:ab,ti OR 'ramucirumab'/exp OR 'nintedanib'/exp OR nintedanib:ab,ti
Second line	#6	'second line':ab,ti OR pretreat*:ab,ti OR 'previously treated':ab,ti OR 'refractory':ab,ti OR 'recurrent':ab,ti
Filter used by the UK Cochrane Centre	#7	'crossover procedure'/exp OR 'double-blind procedure'/exp OR 'randomized controlled trial'/exp OR 'single-blind procedure'/exp OR random* OR factorial* OR crossover* OR cross NEXT/1 over* OR placebo* OR doubl* NEAR/1 blind* OR singl* NEAR/1 blind* OR assign* OR allocat* OR volunteer*
Search equation	#8	#1 AND #2 AND (#3 OR #4 OR #5) AND #6 AND #7