# Supplementary materials

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## **Figure A1. Sensitivity analysis of PFS splitting the erlotinib and gefitinib node (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CET: cetuximab; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; EMI: emibutazumab; ERL: erlotinib; FIC: ficlatuzumab; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; ICO: icotinib; LIN: linsitinib; OLA: olaparib; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab; VIN: Vinorelbine

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## **Figure A2. Subgroup analysis of PFS of treatments versus erlotinib/gefitinib in East Asian patients (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; FIC: ficlatuzumab; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; ICO: icotinib; LIN: linsitinib; MET: Metformin; OSI: osimertinib; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab.

Diagram

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## **Figure A3. Subgroup analysis of PFS of treatments versus erlotinib/gefitinib in non-East Asian patients (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CET: cetuximab; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; GEF: gefitinib; GEM: gemcitabine; LIN: linsitinib; OLA: olaparib; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab; VIN: Vinorelbine.

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## **Figure A4. Subgroup analysis of PFS of treatments versus erlotinib/gefitinib in exon 19 deletion patients (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CI: confidence interval; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; GEF: gefitinib; GEM: gemcitabine; ICO: icotinib; LIN: linsitinib; MET: Metformin; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab.

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## **Figure A5. Subgroup analysis of PFS of treatments versus against erlotinib/gefitinib in patients with L858 mutations (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; GEF: gefitinib; GEM: gemcitabine; ICO: icotinib; LIN: linsitinib; MET: Metformin; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab.

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## **Figure A6. Subgroup analysis of PFS of treatments versus erlotinib/gefitinib excluding brain metastasis (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; MET: Metformin; OSI: osimertinib; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab.

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## **Figure A7. Sensitivity analysis of OS splitting the erlotinib and gefitinib node (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CET: cetuximab; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; EMI: Emibutazumab; ERL: erlotinib; FIC: ficlatuzumab; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; ICO: icotinib; LIN: linsitinib; MET: Metformin; OLA: olaparib; OS: overall survival; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; RAM: ramucirumab.

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## **Figure A8. Subgroup analysis of OS of treatments versus erlotinib/gefitinib excluding brain metastasis (random effects).**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CIS: cisplatin; CrI: credible interval; DAC: dacomitinib; ERL: erlotinib; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; MET: Metformin; OS: overall survival; OSI: osimertinib; PEM: pemetrexed; RAM: ramucirumab.

Diagram

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## **Figure A9. Evidence network for sensitivity analysis splitting ERL and GEF nodes for PFS**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CET: cetuximab; CIS: cisplatin; DAC: dacomitinib; EMI: Emibetuzumab; ERL: erlotinib; FIC: ficlatuzumab; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; ICO; icotinib; LIN: linsitinib; OLA: olaparib; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; PFS: progression-free survival; RAM: ramucirumab; VIN: vinorelbine.

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## **Figure A10. Evidence network for sensitivity analysis splitting ERL and GEF nodes for OS**

AFA: afatinib; BEV: bevacizumab; CARBO: carboplatin; CET: cetuximab; CIS: cisplatin; DAC: dacomitinib; ERL: erlotinib; FIC: ficlatuzumab; GEF: gefitinib; GEF\_m: gefitinib maintenance; GEM: gemcitabine; ICO; icotinib; LIN: linsitinib; MET: metformin; OLA: olaparib; OS: overall survival; OSI: osimertinib; PAC: paclitaxel; PEM: pemetrexed; RAM: ramucirumab; VIN: vinorelbine.

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