Two sample MR report

Neutrophill count || id:ukb-d-30140_irnt against Lung cancer || id:ieu-a-966

Date: 15 July, 2020

Results from two sample MR:

| method | nsnp | b | se | pval |
|---------------------------|------|------------|-----------|-----------|
| MR Egger | 247 | -0.1620031 | 0.1434165 | 0.2597502 |
| Weighted median | 247 | -0.0381354 | 0.0925432 | 0.6802791 |
| Inverse variance weighted | 247 | 0.0091688 | 0.0636801 | 0.8855147 |
| Simple mode | 247 | 0.2071312 | 0.2074613 | 0.3190622 |
| Weighted mode | 247 | 0.1071115 | 0.1398322 | 0.4444104 |

Heterogeneity tests

| method | Q | Q_df | Q_pval |
|---------------------------|----------|------|---------|
| MR Egger | 360.8980 | 245 | 2.0e-06 |
| Inverse variance weighted | 363.5097 | 246 | 1.6e-06 |

Test for directional horizontal pleiotropy

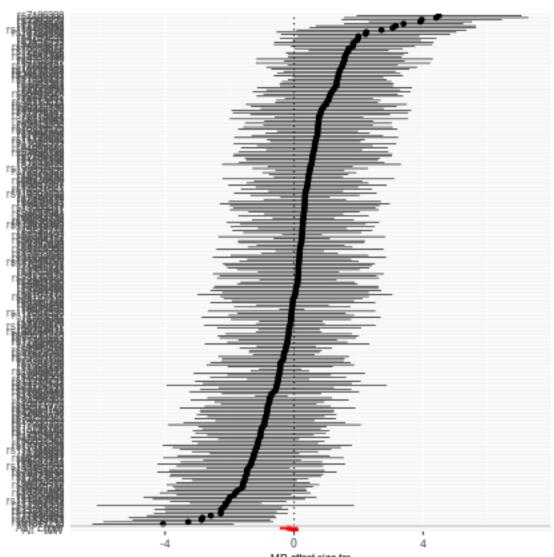
| egger_intercept | se | pval |
|-----------------|-----------|-----------|
| 0.0048924 | 0.0036742 | 0.1842526 |

Test that the exposure is upstream of the outcome

| snp_r2.exposure | snp_r2.outcome | correct_causal_direction | steiger_pval |
|-----------------|----------------|--------------------------|--------------|
| 0.0597632 | 0.0132863 | TRUE | 0 |

Note - R^2 values are approximate

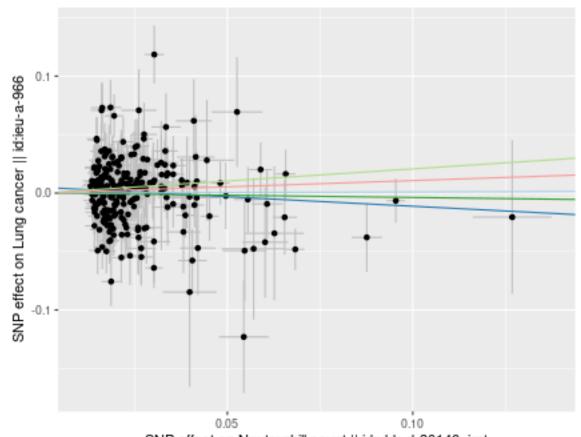
Forest plot of single SNP MR



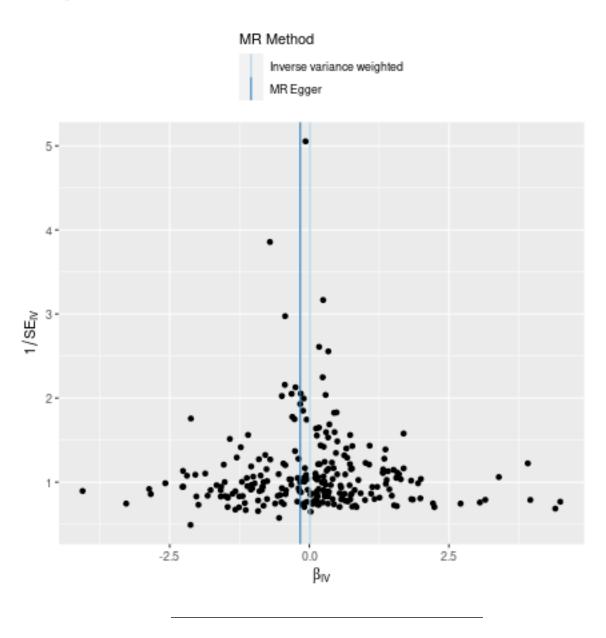
MR effect size for 'Neutrophili count || id:ukb-d-30140_irnt' on 'Lung cancer || id:leu-a-966'

Comparison of results using different MR methods

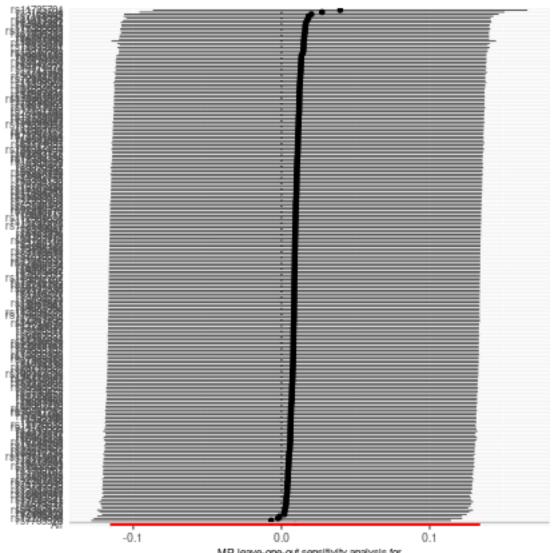




Funnel plot



Leave-one-out sensitivity analysis



MR leave-one-out sensitivity analysis for 'Neutrophili count || id:ukb-d-30140_irnt' on 'Lung cancer || id:leu-a-966'