1. Primary outcome: insulin initiation + other diab outcomes

1.1. VTE Estimation

Table 1: VTE Estiamtes

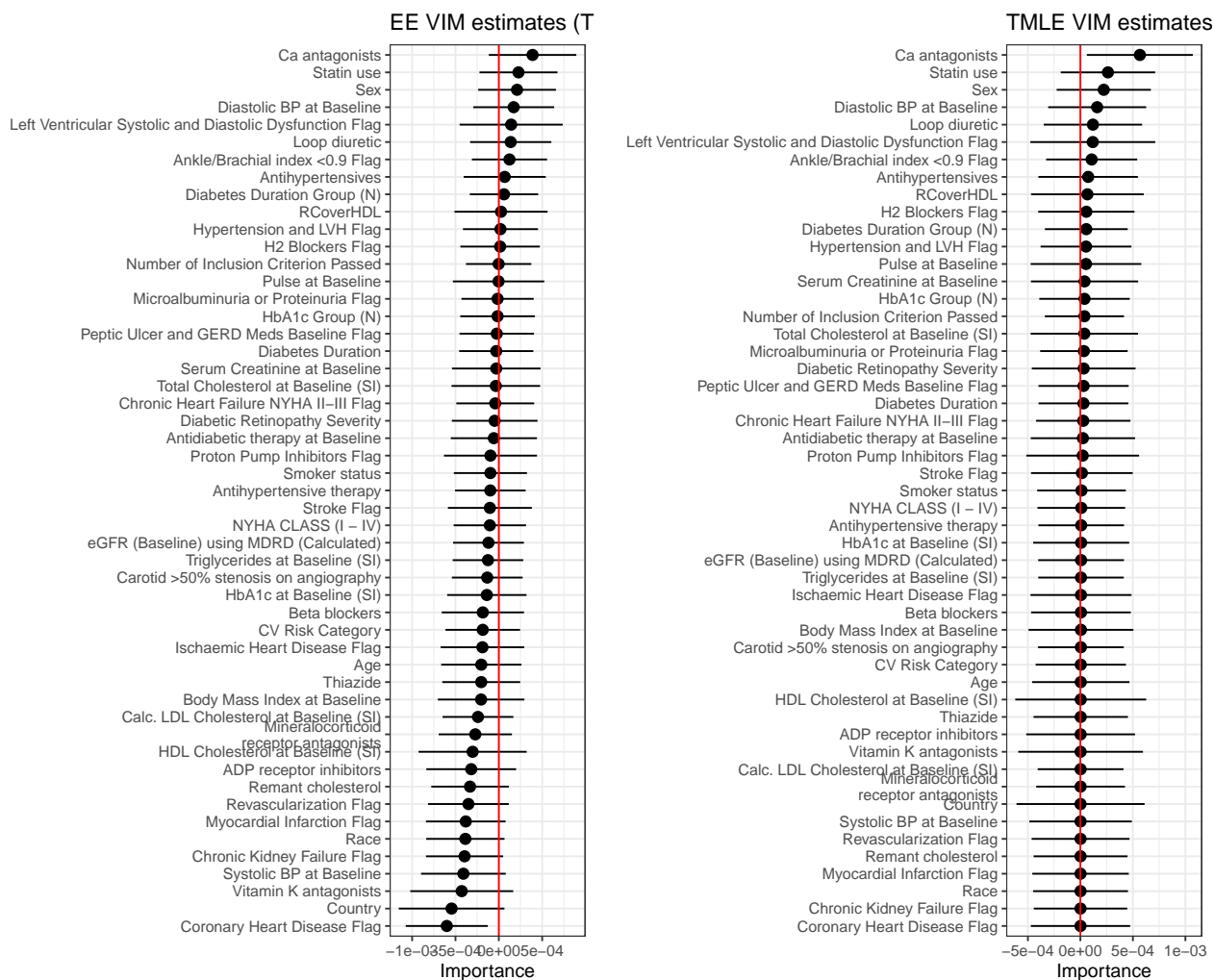| estimator	est	lower	upper
TMLE	0.000033	-0.001316	0.001383
EE	-0.000922	-0.002262	0.000418

1.2. VIM Estimation

Figure 1: VIM Estiamtes

1.3 Stratified TMLE
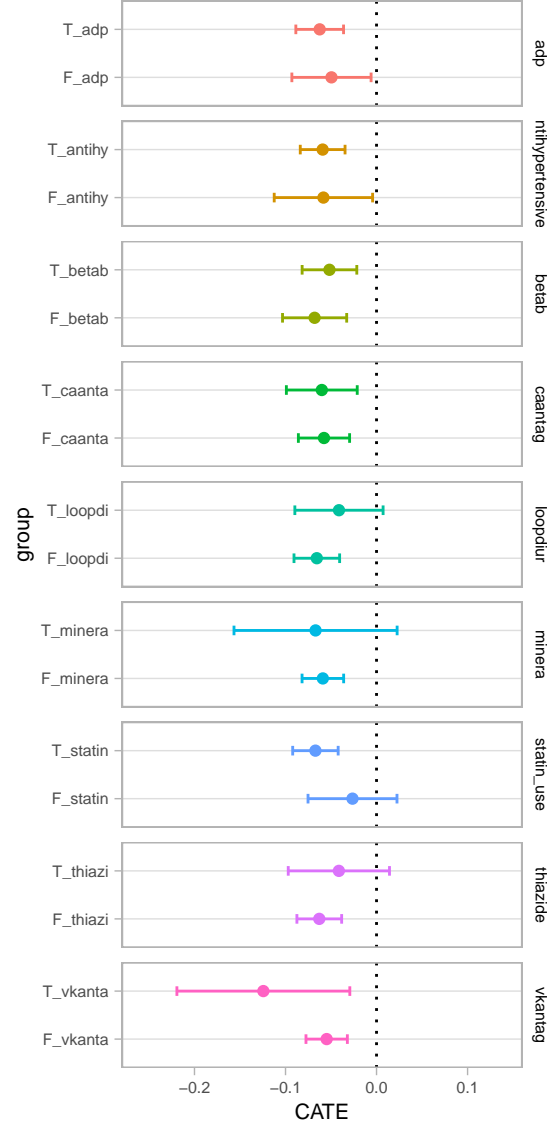

Figure 2: Stratified TMLE ATE Estiamtes

1.4. TMLE Effect Modification

Table 2: TMLE Effect Modification Estiamtes

param	init_est	tmle_est	se	lower	upper
E[Y_{A=00}]	0.175759	0.210526	0.010695	0.189565	0.231487
E[Y_{A=01}]	0.182412	0.194841	0.008808	0.177578	0.212104
E[Y_{A=10}]	0.175759	0.158634	0.010101	0.138836	0.178432
E[Y_{A=11}]	0.141802	0.123877	0.007613	0.108956	0.138797
E[Y_{A=11}] - E[Y_{A=01}]	-0.040610	-0.070964	0.011509	-0.093522	-0.048406
E[Y_{A=10}] - E[Y_{A=00}]	0.000000	-0.051892	0.014579	-0.080467	-0.023317
E[Y_{A=11}] - E[Y_{A=01}] - E[Y_{A=10}] - E[Y_{A=00}]	-0.040610	-0.019072	0.018564	-0.055457	0.017313

2. Alternative Primary outcome: insulin intesnfication + other diab outcomes

2.1. VTE Estimation

Table 3: VTE Estiamtes

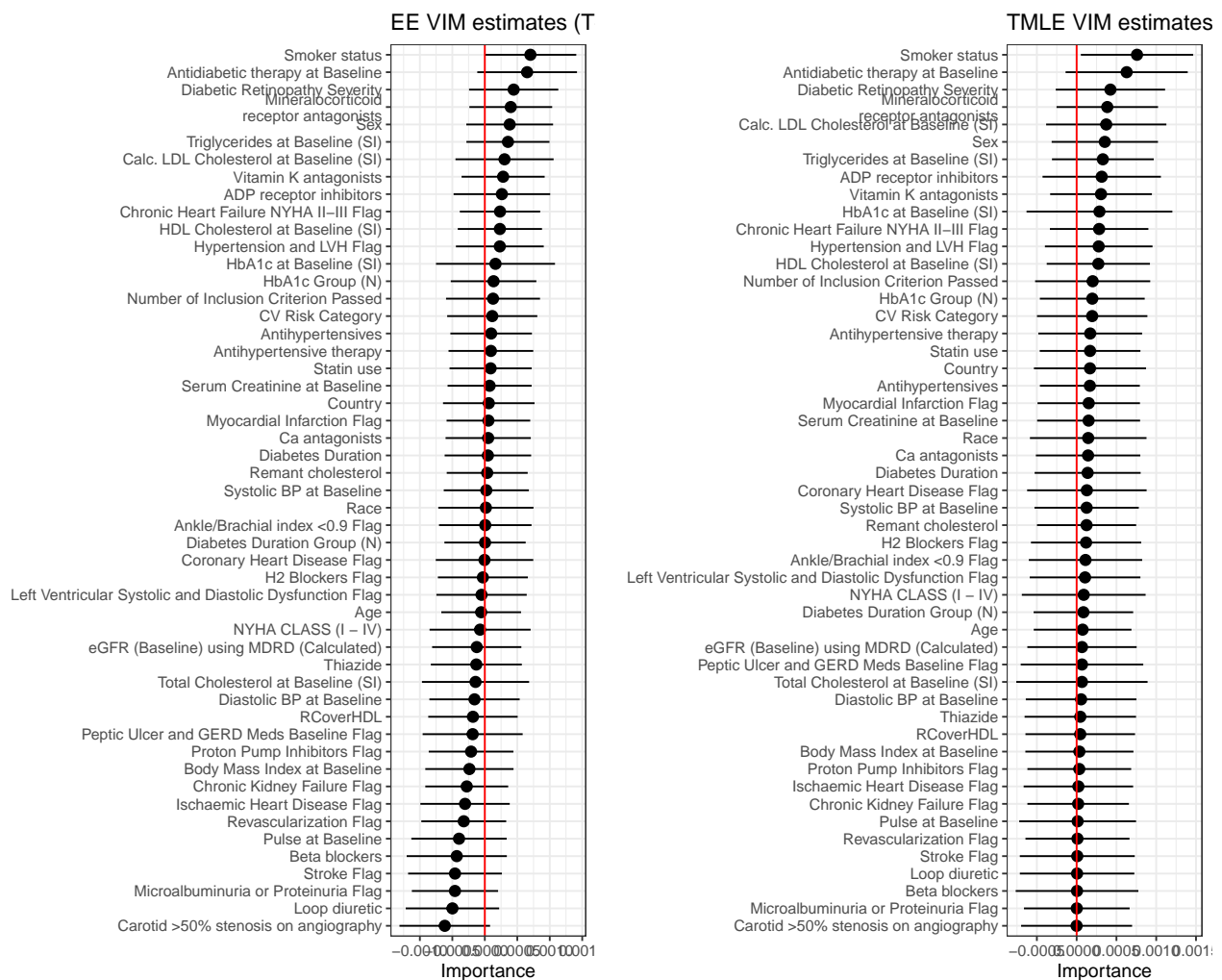| estimator	est	lower	upper
TMLE	0.002255	0.000900	0.003611
EE	0.002217	0.000857	0.003577

2.2. VIM Estimation

Figure 3: VIM Estiamtes

2.3 Stratified TMLE

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## Warning: Removed 9 rows containing missing values (geom_hline).
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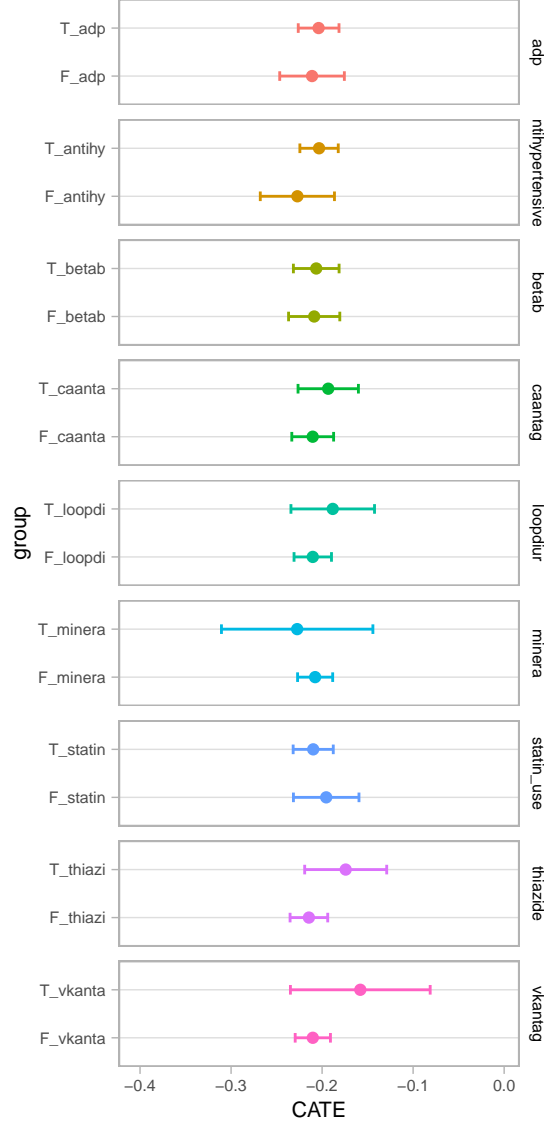
Figure 4: Stratified TMLE ATE Estiamtes

2.4. TMLE Effect Modification

Table 4: TMLE Effect Modification Estiamtes

param	init_est	tmle_est	se	lower	upper
E[Y_{A=00}]	0.454131	0.523891	0.011181	0.501976	0.545805
E[Y_{A=01}]	0.489313	0.492452	0.007949	0.476873	0.508031
E[Y_{A=10}]	0.313187	0.278436	0.010024	0.258789	0.298083
E[Y_{A=11}]	0.288494	0.277406	0.007113	0.263464	0.291347
E[Y_{A=11}] - E[Y_{A=01}]	-0.200819	-0.215046	0.010450	-0.235529	-0.194564
E[Y_{A=10}] - E[Y_{A=00}]	-0.140943	-0.245455	0.014888	-0.274634	-0.216275
E[Y_{A=11}] - E[Y_{A=01}] - E[Y_{A=10}] - E[Y_{A=00}]	-0.059875	0.030408	0.018185	-0.005234	0.066051

3. Secondary outcome: cv outcomes

3.1. VTE Estimation

Table 5: VTE Estiamtes

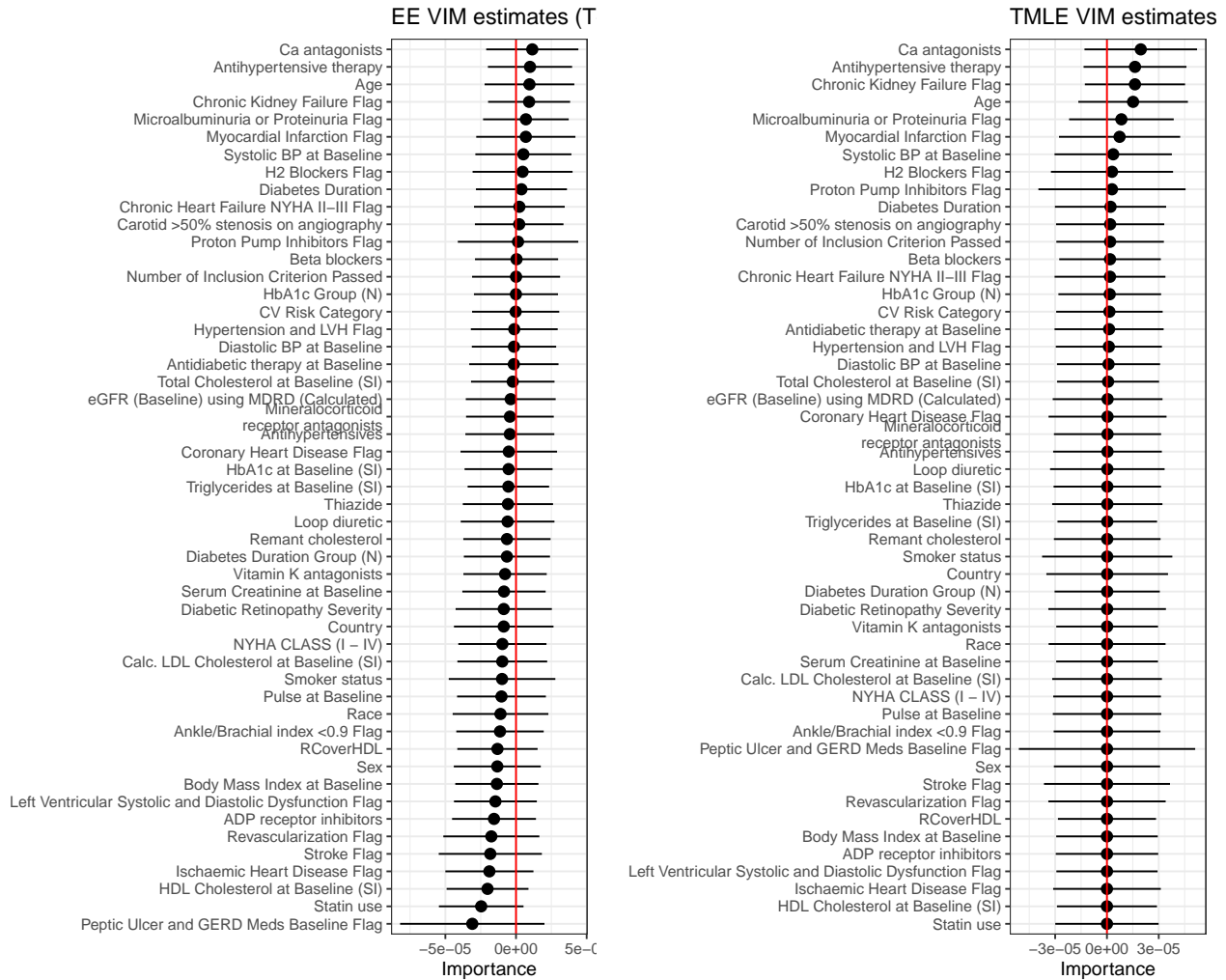| estimator	est	lower	upper
TMLE	1.0e-06	-0.000139	0.000141
EE	-5.3e-05	-0.000196	0.000091

3.2. VIM Estimation

Figure 5: VIM Estiamtes
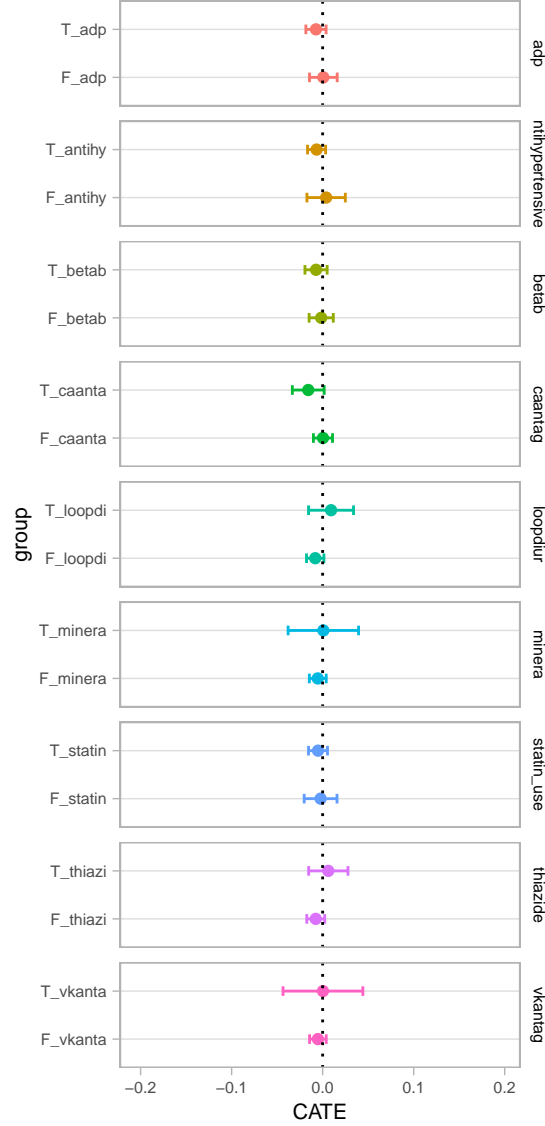
3.3 Stratified TMLE

Figure 6: Stratified TMLE ATE Estiamtes

3.4. TMLE Effect Modification

Table 6: TMLE Effect Modification Estiamtes

param	init_est	tmle_est	se	lower	upper
E[Y_{A=00}]	0.051981	0.067173	0.005692	0.056017	0.078329
E[Y_{A=01}]	0.051981	0.052551	0.003576	0.045542	0.059560
E[Y_{A=10}]	0.051981	0.064032	0.005418	0.053412	0.074652
E[Y_{A=11}]	0.051981	0.045161	0.003335	0.038624	0.051698
E[Y_{A=11}] - E[Y_{A=01}]	0.000000	-0.007390	0.004848	-0.016893	0.002112
E[Y_{A=10}] - E[Y_{A=00}]	0.000000	-0.003141	0.007831	-0.018490	0.012208
E[Y_{A=11}] - E[Y_{A=01}] - E[Y_{A=10}] - E[Y_{A=00}]	0.000000	-0.004249	0.009211	-0.022302	0.013803

4. Secondary outcome: HBA1C

4.1. VTE Estimation

Table 7: VTE Estiamtes

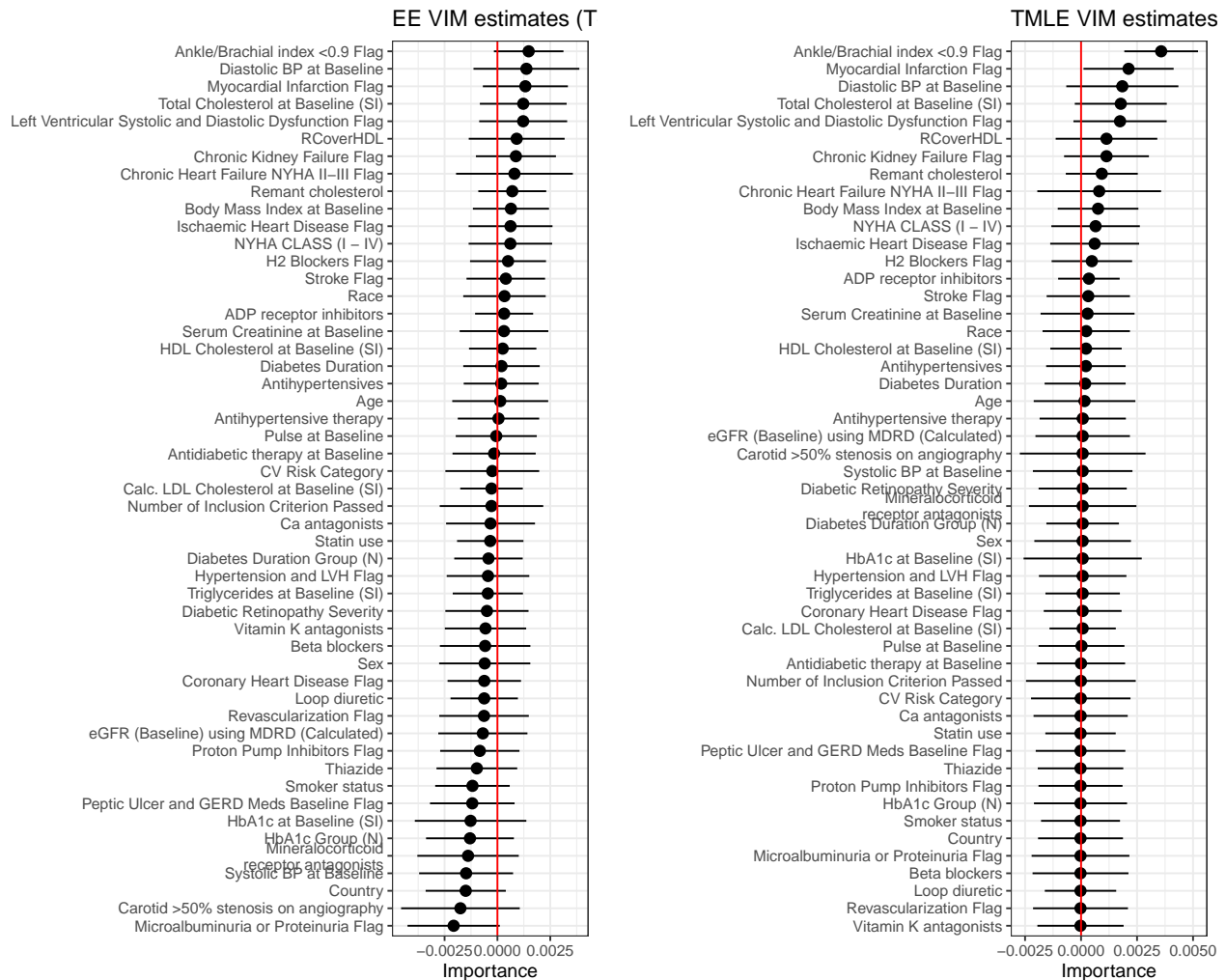| estimator	est	lower	upper
TMLE	0.000000	-0.001120	0.001120
EE	-0.002063	-0.003183	-0.000942

4.2. VIM Estimation

Figure 7: VIM Estiamtes

4.3 Stratified TMLE

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## Warning: Removed 9 rows containing missing values (geom_hline).
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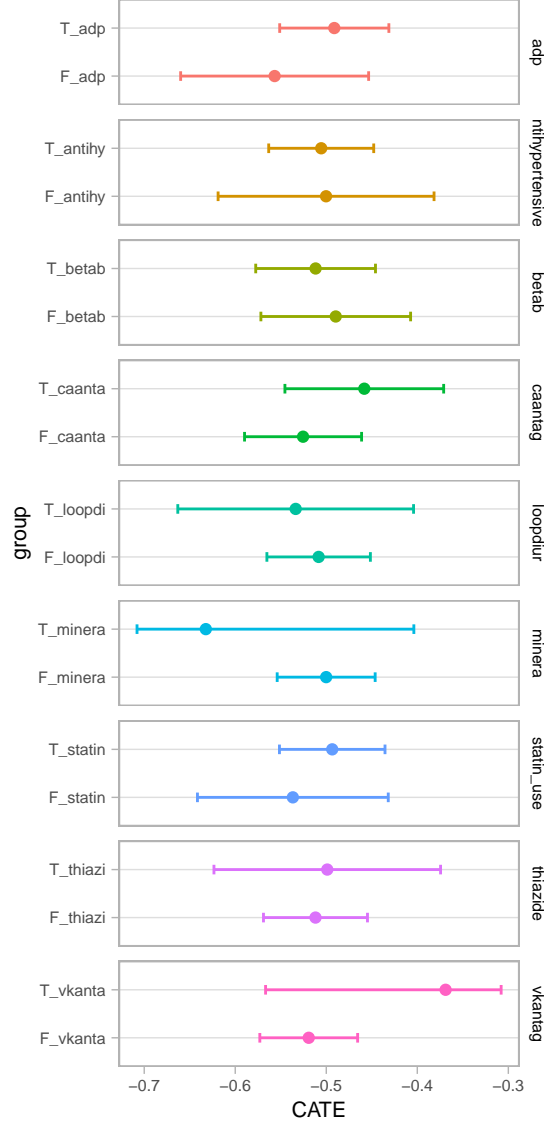
Figure 8: Stratified TMLE ATE Estiamtes

4.4. TMLE Effect Modification

Table 8: TMLE Effect Modification Estiamtes

param	init_est	tmle_est	se	lower	upper
E[Y_{A=00}]	-0.905598	-0.685480	0.031851	-0.747908	-0.623053
E[Y_{A=01}]	-0.797364	-0.719530	0.022663	-0.763948	-0.675112
E[Y_{A=10}]	-1.122627	-1.426664	0.031390	-1.488187	-1.365140
E[Y_{A=11}]	-1.169253	-1.236687	0.023068	-1.281900	-1.191474
E[Y_{A=11}] - E[Y_{A=01}]	-0.371888	-0.517157	0.029309	-0.574603	-0.459712
E[Y_{A=10}] - E[Y_{A=00}]	-0.217029	-0.741183	0.042501	-0.824484	-0.657883
E[Y_{A=11}] - E[Y_{A=01}] - E[Y_{A=10}] - E[Y_{A=00}]	-0.154860	0.224026	0.051630	0.122833	0.325219