

**FILE e-1**

**ONE-WAY SENSITIVITY ANALYSIS FOR CMA AS INITIAL TEST**

CMA, at its current effectiveness, would only become the most cost-effective genetic test if it costed \$1,200 or less.

**COST-EFFECTIVENESS OF GENETIC TESTS FOR EPILEPSY**

Explore how different inputs modify cost-effectiveness

Remember to enter appropriate inputs into the model: proportions should go from 0 to 1 and costs cannot be negative. With inappropriate inputs the model will return inappropriate outputs or errors.

**INPUT**

**COST**

Chromosomal microarray: 1200

Epilepsy panel: 3645

Whole exome sequencing: 6750

**GENETIC DIAGNOSIS**

Chromosomal microarray: 0.08

Epilepsy panel: 0.23

Whole exome sequencing: 0.45

**OUTPUT**

Cost-effectiveness referenced to common baseline of no genetic testing:

CMA: 15000; WES: 15000; EP: 15847.83

For illustrative purposes only. The most common measure of cost-effectiveness is the ICER referenced to the next most cost-effective alternative as presented in the Cost-Effectiveness Table.

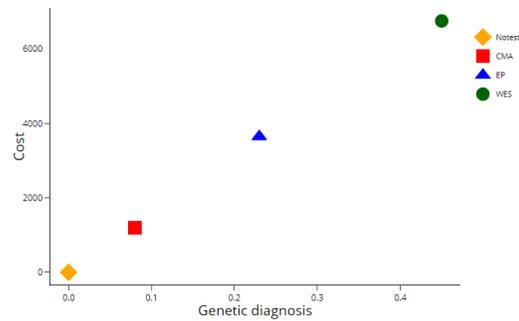
**COST-EFFECTIVENESS TABLE**

Names	Cost	Effectiveness	IE	IC	ICER
No genetic testing	0.00	0.00	0.00	0.00	NA
Chromosomal microarray	1200.00	0.08	0.08	1200.00	15000.00
Whole exome sequencing	6750.00	0.45	0.37	5550.00	15000.00

\*Strategies that are not cost-effective disappear from the table.

Legend: IE: Incremental effectiveness. IC: Incremental cost. ICER: Incremental cost-effectiveness ratio.

**COST-EFFECTIVENESS PLOT**

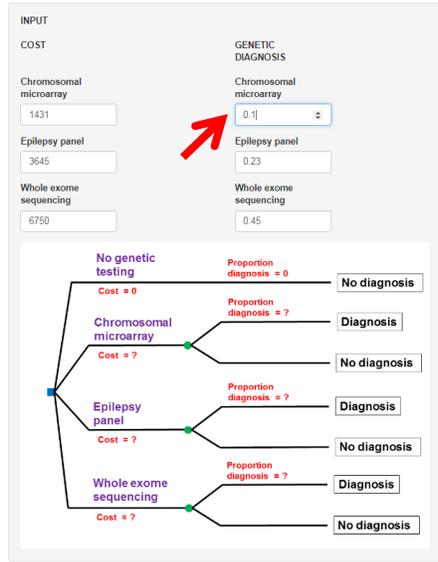


CMA, at its current cost, would only become the most cost-effective genetic test if it had a diagnostic yield of 0.1 or more.

# Diagnostic yield of genetic tests in epilepsy

## COST-EFFECTIVENESS OF GENETIC TESTS FOR EPILEPSY

Explore how different inputs modify cost-effectiveness  
Remember to enter appropriate inputs into the model, proportions should go from 0 to 1 and costs cannot be negative. With inappropriate inputs the model will return inappropriate outputs or errors.



**OUTPUT**  
Cost-effectiveness referenced to common baseline of no genetic testing  
CMA: 1431.00, WES: 15000, EP: 15847.83  
For illustrative purposes only. The most common measure of cost-effectiveness is the ICER referenced to the next most cost-effective alternative as presented in the Cost-Effectiveness Table.

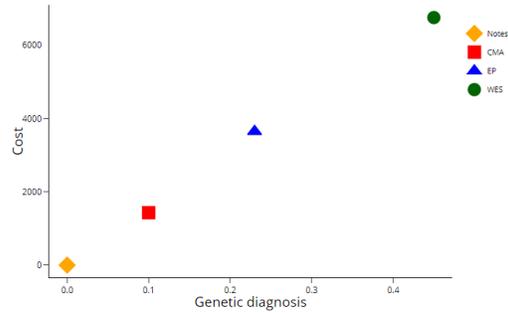
### COST-EFFECTIVENESS TABLE

Names	Cost	Effectiveness	IE	IC	ICER
No genetic testing	0.00	0.00	0.00	0.00	NA
Chromosomal microarray	1431.00	0.10	0.10	1431.00	14310.00
Whole exome sequencing	6750.00	0.45	0.35	5319.00	15197.14

\*Strategies that are not cost-effective disappear from the table.

Legend: IE: Incremental effectiveness, IC: Incremental cost, ICER: Incremental cost-effectiveness ratio.

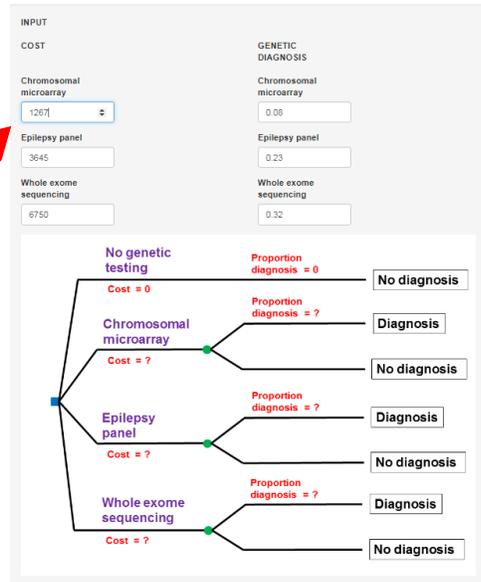
### COST-EFFECTIVENESS PLOT



Adjusting for potential publication bias in the estimation of the WES effectiveness, CMA at its current effectiveness, would only become the most cost-effective genetic test if it costed \$1,267 or less.

## COST-EFFECTIVENESS OF GENETIC TESTS FOR EPILEPSY

Explore how different inputs modify cost-effectiveness  
Remember to enter appropriate inputs into the model, proportions should go from 0 to 1 and costs cannot be negative. With inappropriate inputs the model will return inappropriate outputs or errors.



**OUTPUT**  
Cost-effectiveness referenced to common baseline of no genetic testing  
CMA: 15837.5, EP: 15847.83, WES: 21093.75  
For illustrative purposes only. The most common measure of cost-effectiveness is the ICER referenced to the next most cost-effective alternative as presented in the Cost-Effectiveness Table.

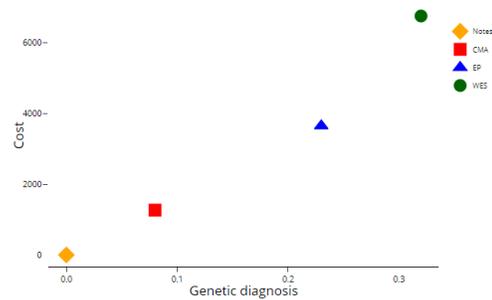
### COST-EFFECTIVENESS TABLE

Names	Cost	Effectiveness	IE	IC	ICER
No genetic testing	0.00	0.00	0.00	0.00	NA
Chromosomal microarray	1267.00	0.08	0.08	1267.00	15837.50
Epilepsy panel	3645.00	0.23	0.15	2378.00	15853.33
Whole exome sequencing	6750.00	0.32	0.09	3105.00	34500.00

\*Strategies that are not cost-effective disappear from the table.

Legend: IE: Incremental effectiveness, IC: Incremental cost, ICER: Incremental cost-effectiveness ratio.

### COST-EFFECTIVENESS PLOT



Adjusting for potential publication bias in the estimation of the WES effectiveness, CMA at its current cost, would only become the most cost-effective genetic test if it had a diagnostic yield of 0.1 or more.