**Log of changes for version h**

Original run

NONE 0.0 15.786

NONE 0.0 16.544

NONE 0.0 16.798

OPHTH 1867.1 16.277

OPHTH 1924.6 16.63

OPHTH 1874.5 16.167

Strategy 2 -104929.63

Why is ICER negative?

Changes unexpectedly every time, maybe I just don’t understand how it works.

Remove ; from meanCost and meanQALY in doPort lines 44 and 45

Not helpful

Change to display meanCost(i), meanCost(1), meanQaly(i), meanQaly(1)

Not possible

Split up line that calculates ICER to see what meanCost(i) - meanCost(1) is on its own

meanCost(i) - meanCost(1)

1.8424e+03

meanQaly(i) - meanQaly(1)

-0.2340

**doMarkov line 34**

EYECORREL, change to 0.15. Less bilateral blindness, expected QALY increase

NONE 0.0 16.069

NONE 0.0 15.776

NONE 0.0 15.953

OPHTH 1885.7 16.387

OPHTH 1915.5 16.58

OPHTH 1918.6 16.619

Strategy 2 3198.99

Hard to tell if it changed, but wouldn’t expect a huge change

Change to 1, expected QALY decrease

NONE 0.0 15.584

NONE 0.0 15.66

NONE 0.0 15.757

OPHTH 1859.8 16.055

OPHTH 1819.4 15.742

OPHTH 1813.0 15.839

Strategy 2 8649.13

Looks like QALY decreased, makes sense.

Shouldn’t ICER decrease?

**doMarkov line 39**

UTILUNILATBLIND, change to 0.01. Expect QALY to decrease

NONE 0.0 15.57

NONE 0.0 16.085

NONE 0.0 15.805

OPHTH 1978.1 17.163

OPHTH 1892.8 16.426

OPHTH 1875.9 16.285

Strategy 2 2380.61

NONE goes down, OPHTH does not as much. Makes sense because screening would save sight with treatment.

**maketpm line 11**

Change all probabilities to 100% chance of progressing to blindness

Dimensions don’t fit anymore

Change probabilities to 90% advancing to next stage. Also need to change morbidity matrix to get rid of duplicate m’s

NONE 0.0 4.366

NONE 0.0 4.372

NONE 0.0 4.314

OPHTH 1497.7 6.009

OPHTH 1538.8 6.115

OPHTH 1488.7 5.928

Strategy 2 905.04

QALY goes down, great

**maketpm line 45**

Change applyscatter column 6, row 7 to 0.005, should get higher QALY for OPHTH only

NONE 0.0 16.134

NONE 0.0 15.922

NONE 0.0 16.391

OPHTH 1910.0 16.559

OPHTH 1922.5 16.668

OPHTH 1929.1 16.69

Strategy 2 3919.46

Didn’t notice a huge change, try also changing scatter to 0.005 also

NONE 0.0 15.381

NONE 0.0 15.252

NONE 0.0 16.418

OPHTH 1874.4 16.296

OPHTH 1817.7 15.843

OPHTH 1917.3 16.731

Strategy 2 3083.78

If anything QALY went down. Try adjusting more values down to 0.005

NONE 0.0 15.837

NONE 0.0 16.075

NONE 0.0 16.047

OPHTH 1829.3 16.024

OPHTH 1908.5 16.53

OPHTH 1934.5 16.752

Strategy 2 4211.06

Why isn’t this changing? Try making all values in matrices to 0.005

NONE 0.0 16.385

NONE 0.0 16.205

NONE 0.0 15.939

OPHTH 1949.2 16.885

OPHTH 1854.7 16.161

OPHTH 1916.6 16.641

Strategy 2 4939.98

ICER looks like it might be going up? Shouldn’t it go down?

Still no big difference in QALY. COME BACK TO THIS.

**Questions about maketpm**

**maketpm line 5**

What is Boolean true or false

Basically just true or false

I do understand the morbidity multiplier, but **I don’t understand the APPLYMORBIDITY matrix maketpm line 30**

[1 m 1 1 1 1 1 1;

1 1 m 1 1 m 1 1;

1 1 1 m 1 m 1 1;

1 1 1 1 m m 1 1;

1 1 1 1 1 1 m 1;

1 1 1 1 1 1 m 1;

1 1 1 1 1 1 1 1;

1 1 1 1 1 1 1 1];

Why are there multiple m’s in some lines and none in others?

m corresponds to the same position in tpmBaseline

I do understand applyfocal and applyscatter

screenSystemV1h line 171

POPHEALTHY = 1;

POPUNHEALTHY = 2;

POPVERYHEALTHY = 3;

POPVERYUNHEALTHY = 4;

HEALTHMORBIDITY = [1 3 0.333 5]

What is the “Strategy 2” number at the bottom?

ICER