

The cost-effectiveness of an AI stroke imaging tool (B360S) - Dynamic Report

Nichola Naylor (OI Pharma Partners Ltd), GPT-4o & GPT-5, Brainomix Ltd

2025 Analysis: 2023 Values

Contents

1	Introduction	1
2	Notes	1
3	Selection	1
4	Results	1
4.1	Process / Procedure numbers	1
4.2	Total Costs and QALYs	2
4.3	Incremental results	2

1 Introduction

This report presents a cost-effectiveness analysis of a Brainomix 360 Stroke (B360S) AI software decision-support tool in England NHS hospitals.

For more detailed information on the model structure please refer to the associated publication: [TO BE ADDED ONCE ACCEPTED]

2 Notes

- Displays precomputed results from previously run analyses; no models are re-run in the compilation of this report.
- Use **Knit** → **Knit with Parameters...** to choose Level and (if needed) Hospital/ISDN from drop-downs.

3 Selection

Level: Hospital

Scope: Hospital: Addenbrooke's Hospital

4 Results

4.1 Process / Procedure numbers

In Table 1 below, unit costs represent the direct cost of performing the procedures, whilst long term costs and QALYs are the per-procedure impacts modelled over time, based on changing distributions of patients on mRS scores. Values are rounded to the nearest value, and as such multiplying these may be different to the values computed with raw values and presented in Table 2. In Table 2, the cost of implementing the intervention is also included in total intervention costs.

Table 1: Process / Procedure numbers – Part 1

procedure	intervention (numbers)	standard (numbers)	unit cost (£)	long-term cost (£)	long-term quality of life (QALYs)
IVT	85	82	2,113	-4,118	1
MT	30	26	9,140	-18,606	1
IVT + MT	17	16	11,252	-18,606	1
NCCT + CTA	553	553	156	0	0
NCCT + CTA + CTP	190	190	243	0	0
NCCT + CTA + CTP + MRI	4	4	418	0	0

Table 2: Process / Procedure numbers – Part 2

procedure	total intervention costs (£)	total standard costs (£)	total intervention QALYs	total standard QALYs
IVT	-171,002	-163,513	49	47
MT	-284,887	-242,267	30	26
IVT + MT	-124,835	-116,552	17	16
NCCT + CTA	86,240	86,240	0	0
NCCT + CTA + CTP	46,114	46,114	0	0
NCCT + CTA + CTP + MRI	1,619	1,619	0	0

4.2 Total Costs and QALYs

Table 3: Total costs and QALYs

total intervention costs (£)	total standard costs (£)	total intervention QALYs	total standard QALYs
-411,531	-388,360	97	89

4.3 Incremental results

Note that net monetary benefit (NMB) is calculated as :

$$NMB = (\text{Incremental QALYs} \times \text{Willingness-to-pay}) - \text{Incremental Costs}$$

We use a willingness-to-pay threshold of £20,000 per QALY gained, as recommended by NICE.

Table 4: Incremental results (intervention vs standard)

inc.cost	Incremental QALYs	Net Monetary Benefit (£)
-23,172	8	179,753