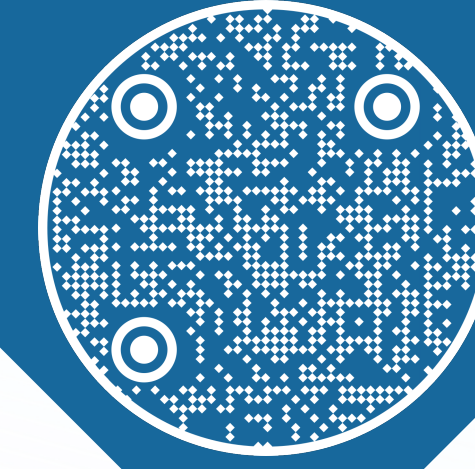


Cost-Effectiveness of Recombinant Human C1 Esterase Inhibitor (rhC1-INH) vs Sebetralstat for the Treatment of Severe or Very Severe Hereditary Angioedema (HAE) Attacks



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KEY TAKEAWAYS

rhC1-INH provides 11.3 more hours of attack-free time vs sebetralstat in severe/very severe attacks

rhC1-INH demonstrated 29% lower cost per severe/very severe attack vs sebetralstat, driven by reduced redosing

rhC1-INH is cost-effectively dominant (100% probability at any willingness-to-pay threshold)

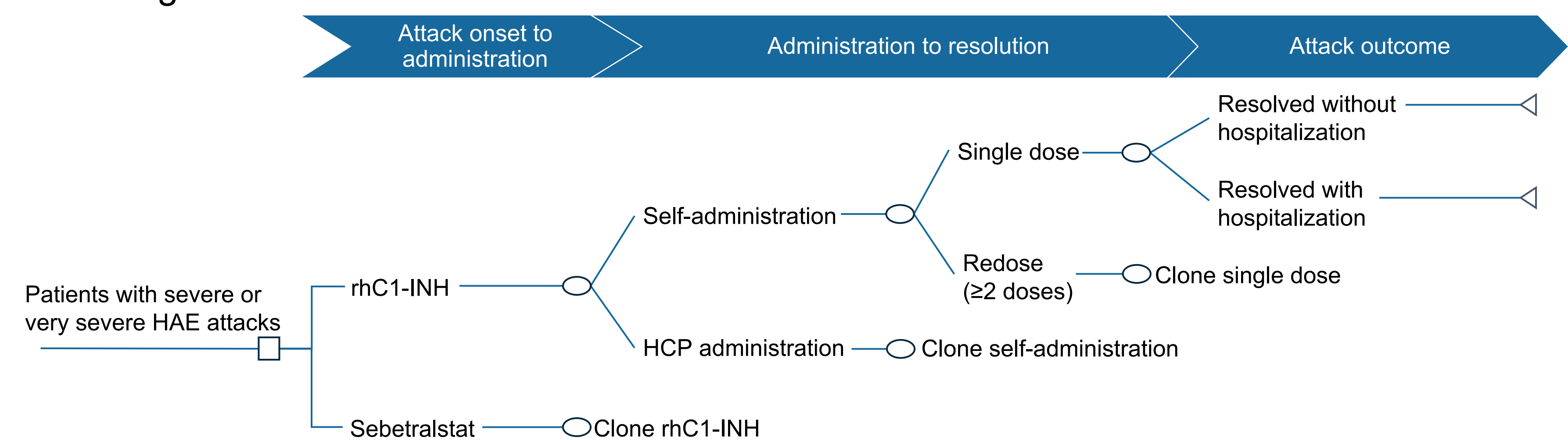
INTRODUCTION

- HAE is a rare, autosomal dominant disorder affecting approximately 1 in every 50,000 individuals¹
- HAE is characterized by recurrent, sometimes severe swelling attacks that require the use of on-demand treatments¹
- Currently available FDA-approved treatment options include ecallantide, pdC1-INH, icatibant, rhC1-INH, and sebetralstat²⁻⁶
- Although the cost-effectiveness of rhC1-INH vs icatibant, ecallantide, and pdC1-INH has been previously established,⁷ the emergence of new therapies (eg, sebetralstat) necessitates updated analyses to assess incremental costs and health outcomes⁸

OBJECTIVE

- This study analyzed the cost-effectiveness of rhC1-INH vs sebetralstat for the treatment of severe or very severe HAE attacks

Figure 1 Diagram of Decision-Tree Model



Note: This figure presents a schematic diagram of the decision tree for this model. From the attack node, there are 2 treatment paths with the same structure for each.

ABBREVIATIONS
 FDA, US Food and Drug Administration; HAE, hereditary angioedema; HCP, health care professional; HR, hazard ratio; INMB, incremental net monetary benefit; MAIC, matching-adjusted indirect comparison; NA, not applicable; OR, odds ratio; pdC1-INH, plasma-derived C1 esterase inhibitor; QALH, quality-adjusted life-hours; rhC1-INH, recombinant human C1 esterase inhibitor; RMST, restricted mean survival time.

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DISCLOSURES

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METHODS

- A decision-tree model comparing rhC1-INH and sebetralstat was constructed from the US commercial payer perspective, focusing on 1 severe or very severe HAE attack over a 72-hour period (Fig 1)
- Key efficacy inputs, health utilities, costs, and other inputs are shown in Table 1
- Costs are presented in 2025 US dollars; cost inputs from previous years were adjusted to 2025 price using US medical care inflation indices
- Outcomes included: (1) absolute and incremental duration and cost of a single attack, (2) per-attack QALH, derived using severity-specific health utilities, and (3) INMB per attack (willingness-to-pay threshold: \$150,000) for rhC1-INH over sebetralstat

Table 1 Key Model Input Values

	rhC1-INH	Sebetralstat
Calculated drug cost ^a per dose	\$16,012 ^b	\$16,720
Dosing	50 U/kg (max 4200 U) ⁵	600 mg ⁶
Package	2,100 U × 1 vial	300 mg × 4 tablets
Body weight, kg (SD)	81 (24) ⁷	NA
Self-administration rate, %	95 ⁸	100
Calculated cost of administration by HCP		\$523 ^c
Redose rate, %	10.8 ¹⁰ (calculation)	39.8 ¹¹
Redose rate, OR (95% CI) for rhC1-INH vs sebetralstat		0.183 (0.063-0.526) ¹⁰
Time to complete resolution, RMST, h	6.9 ^{10,d}	18.2 ^{10,d}
Resolution rate, HR (95% CI) for rhC1-INH vs sebetralstat		5.385 (2.608-11.120) ^{10,e}
Hospitalization rate, %		3.5 ¹²
Second redose rate, %	0	8.6 ¹¹
Hospitalization rate for second redose, %		10 ^f
Hospitalization cost (95% CI)		\$8,383 (\$7,432-9,334) ¹³
Non-attack utility (SE)		0.740 (0.079) ¹⁴
Severe attack utility (SE)		0.080 (0.008) ¹⁵
Infusion reaction disutility	-0.009 ¹⁶	NA

^aAll costs were adjusted to 2025 US\$. ^bThe calculation accounts for wastage assuming patient weight follows a log-normal distribution. ^cThe calculation accounts for distribution of different administration routes and adjusted by inflation. ^dRMST at 24 hours calculated based on MAIC analysis. ^eDerived from an MAIC analysis. ^fInput value based on assumption.

RESULTS

- rhC1-INH provides 11.3 additional attack-free hours per severe or very severe HAE attack (Fig 2), yielding cost savings of \$7,356 per attack (Fig 3) and \$7,484 in INMB compared with sebetralstat
- Patients treated with rhC1-INH gained 7.4 QALHs per attack (48.7 vs 41.3 hours) (Fig 2)
- One-way sensitivity analysis identified the odds of redosing rhC1-INH relative to sebetralstat as the most influential parameter (Fig 4)
- At a willingness-to-pay threshold of \$150,000, rhC1-INH demonstrated a 100% probability of cost-effectiveness relative to sebetralstat (Fig 5)

Figure 2 Time Spent in Attack and QALH per Attack in a 72-Hour Period

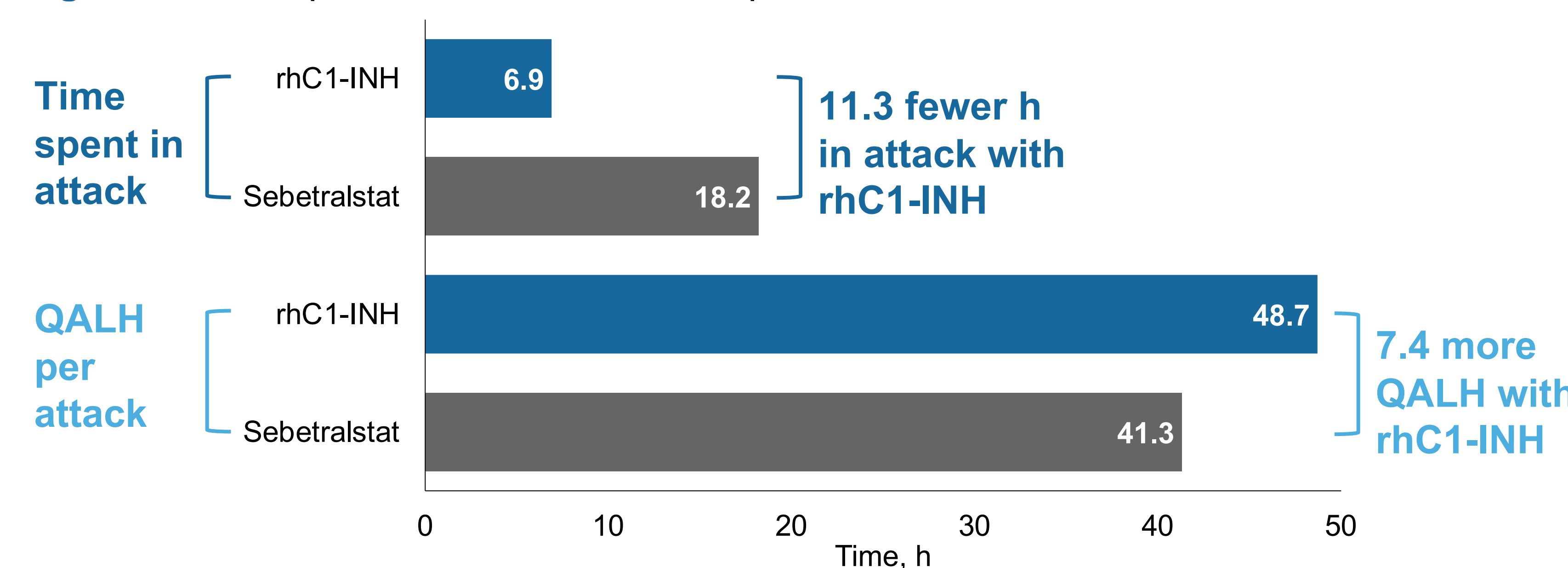
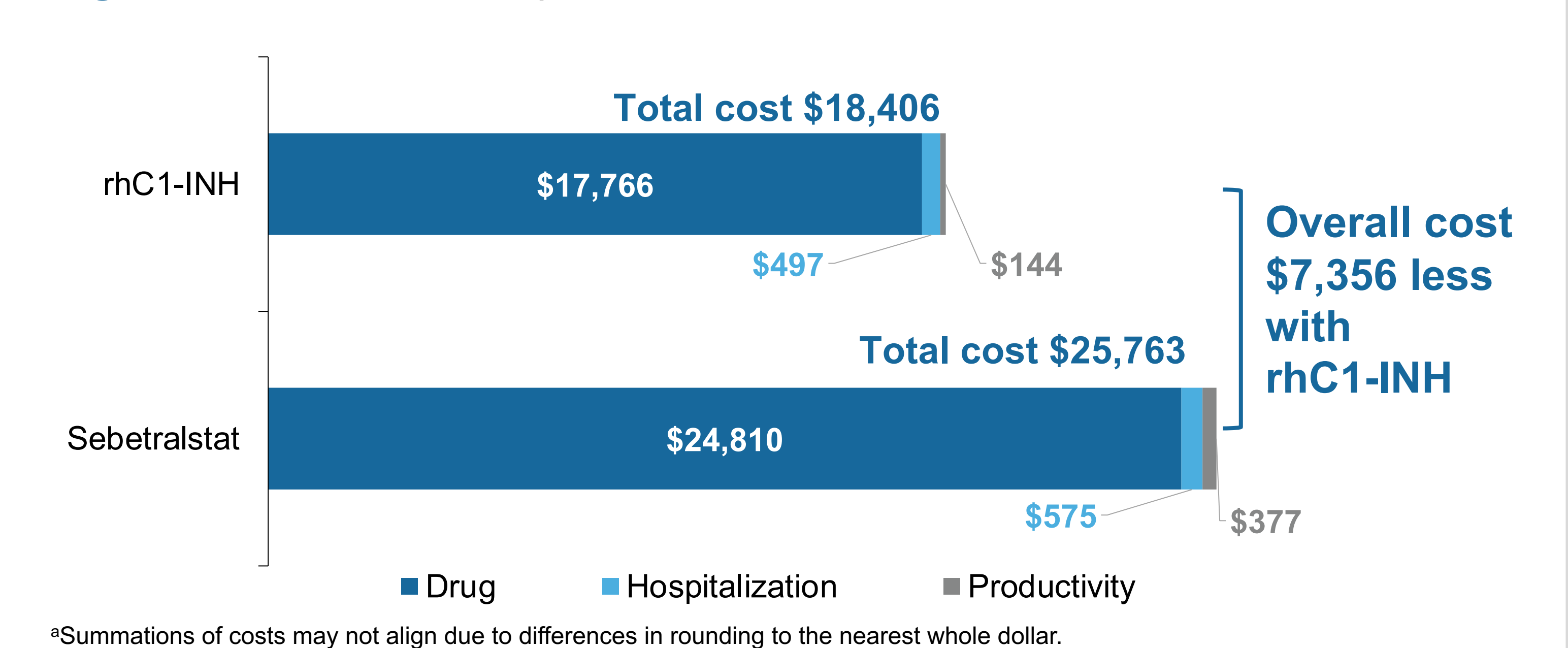


Figure 3 Estimated Cost per Attack^a



^aSummations of costs may not align due to differences in rounding to the nearest whole dollar.

Figure 4 One-Way Sensitivity Analysis, INMB

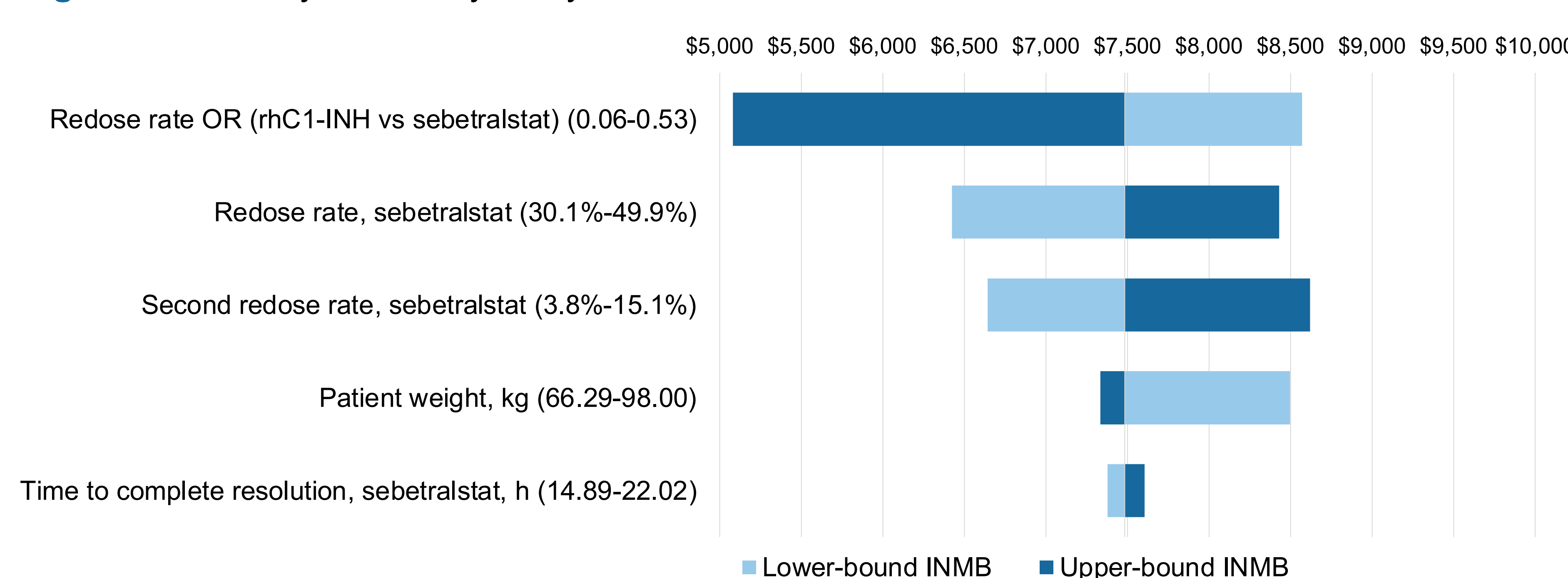


Figure 5 Cost-Effectiveness Acceptability Curve

