

EVIDENCE BASED RESEARCH THAT SHAPES DECISION MAKING

ECONOMIC EVALUATIONS – FREQUENTLY ASKED QUESTIONS

1) Why are economic models of health care products important?

Correctly developed models can:

- amplify product benefits.
- generate access to target decision makers.
- influence funding and formulary decisions.
- demonstrate benefits beyond those proven in clinical trials.

2) What types of model are there?

Models are used for many different purposes and the way a model looks and operates should be dependent upon the audience it is designed to serve. Models to support reimbursement or government-level applications will be used by customers with a high level of technical understanding, models used by field-teams will probably not.

3) What makes a good model?

Transparency, accuracy and validity should be the three watchwords to remember when evaluating a model.

Transparency starts with the design and an unambiguous statement of the purpose of the model, accompanied by a model design specification. Ensure that the model is only as complicated as it needs to be to meet the specification and confirm that everything within the model is easy to understand, including assumptions, data sources, results and conclusions.

Accuracy means not only being able to perform every calculation correctly but also being able to prove this with in-built automated error checking and systematic hand checking.

Validity is founded on the ability of the model to reflect the clinical area it is designed to evaluate and should be assessed by a clinical expert and modeller over a full range of operating scenarios.

4) What does Heron do differently?

We apply a number of robust principles to the models we develop to ensure the models are transparent, accurate and valid.

Our qualified, expert mathematical modelling staff always manage Heron's modelling assignments.

Heron has built up a unique library of requirement specifications, research and development protocols, applied modelling techniques, data sources, libraries of code, sensitivity analyses, data input and output formats and user guides to ensure that models can be built transparently and accurately without sacrificing time for testing.

Validity is underlined by the time for customer and end-user feedback that is built into each assignment, the formal measurement of understanding and utilisation that is made, and Heron's critical appraisal processes designed to not only test our own models but also to reassure customers of the integrity of their existing models.

Finally, Heron recognises that models should not be the focus of customer discussions, but should only serve to confirm a need or communicate product benefits. All Heron models are constructed with the pledge that they can take a customer from 'introduction to understanding' in five minutes.

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Key: ■ = Included □ = Optional - = Not Included

Feature		Heron Evidence Development Ltd Health Outcomes Model	Other Health Outcomes Model
Needs Confirmation	Primary Purpose	■	■
	Secondary Purposes	■	■
	Customer Requirements	■	■
	Key Message Clarification	■	□
	End-User Requirements	■	■
	Dissemination Methods	■	■
	Training and Development Requirements	■	■
	Hardware Specification	■	■
	Software Standards	■	■
	Measures of Success Predefined	■	■
Model Design Specification Document	■	■	
Application	Technique: Decision Tree	■	Technique varies
	Technique: Disease State Transition (e.g. Markov Model)	■	Technique varies
	Technique: First Order Probabilistic (e.g. Monte Carlo Simulation)	■	Technique varies
	Technique: Second Order Probabilistic (e.g. Probabilistic Sensitivity Analysis)	■	Technique varies
	Technique: Boot Strapping	■	Technique varies
	Technique: Conjoint Analysis	□	Focus varies
	Focus: Epidemiological	-	Focus varies
	Focus: Target Benefit Profile	■	Focus varies
	Focus: Health Technology Assessment	■	Focus varies
	Focus: Field Force (Payer)	■	Focus varies
Focus: Field Force (Multimedia)	-	Focus varies	
Research	Outcomes: Options Appraisal	■	■
	Outcomes: Data Source(s)	■	■
	Costs: Options Appraisal	■	■
	Costs: Data Source(s)	■	■
	Context: Health Policy Environmental Assessment	■	-
	Context: Local Health Service Variation Assessment	■	-
	Model Research Summary Document	■	□
Development	Develop: Mathematical Modelling	■	■
	Develop: Structural Development	■	■
	Develop: Design 'Look and Feel'	■	■
	Develop: User Manual	■	□
	Develop: Customer Manual	□	-
	Review Emerging Results and Structure and Agree Focus	■	□
	Review Design	■	□
	Verification: Protocol Driven	■	□
	Verification: Ad Hoc	-	■
	Validation: Protocol Driven	■	□
	Validation: Ad Hoc	-	■
	End User Utility Testing: Protocol Driven	■	□
	End User Utility Testing: Ad Hoc	-	■
Launch	Training Programme	■	□
	Customer/End User Field Trial Protocols	■	□
	Tactical End-User Coaching	■	□
	Handover Model	■	■