STARD - BLCM

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HARMONY
Novel tools for test evaluation and disease prevalence estimation

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

UNIVERSITY OF THESSALY
creative years


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The STARD family

- **STARD**
  - STARD 2015
  - STARDdem
  - STRADAS-paraTB
  - STARD-BLCM
  - STARD for Abstracts

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STARD-BLCM Checklist

TITLE OR ABSTRACT

ABSTRACT

INTRODUCTION

METHODS

- Study design
- Participants
- Test methods
- Analysis

RESULTS

- Participants
- Test results

DISCUSSION

OTHER INFORMATION

Section & Topic	No	Item
TITLE OR ABSTRACT		
	1	Identification as a study of diagnostic accuracy, using at least one measure of accuracy (such as sensitivity, specificity, predictive values, or AUC) **and Bayesian latent class models**
ABSTRACT		
	2	Structured summary of study design, methods, results, and conclusions (for specific guidance, see STARD for Abstracts)
INTRODUCTION		
	3	Scientific and clinical background, including the intended use and clinical role of the **tests under evaluation**
	4	Study objectives and hypotheses, **such as estimation of diagnostic accuracy of the tests for a defined purpose through BLCM**

METHODS		
Study design	**5**	Whether data collection was planned before the **tests** were performed (prospective study) or after (retrospective study)
Participants	**6**	Eligibility criteria **and description of the source population**
	7	On what basis potentially eligible participants were identified (such as symptoms, results from previous tests, inclusion in registry)
	8	Where and when potentially eligible participants were identified (setting, location and dates)
	9	Whether participants formed a consecutive, random or convenience series

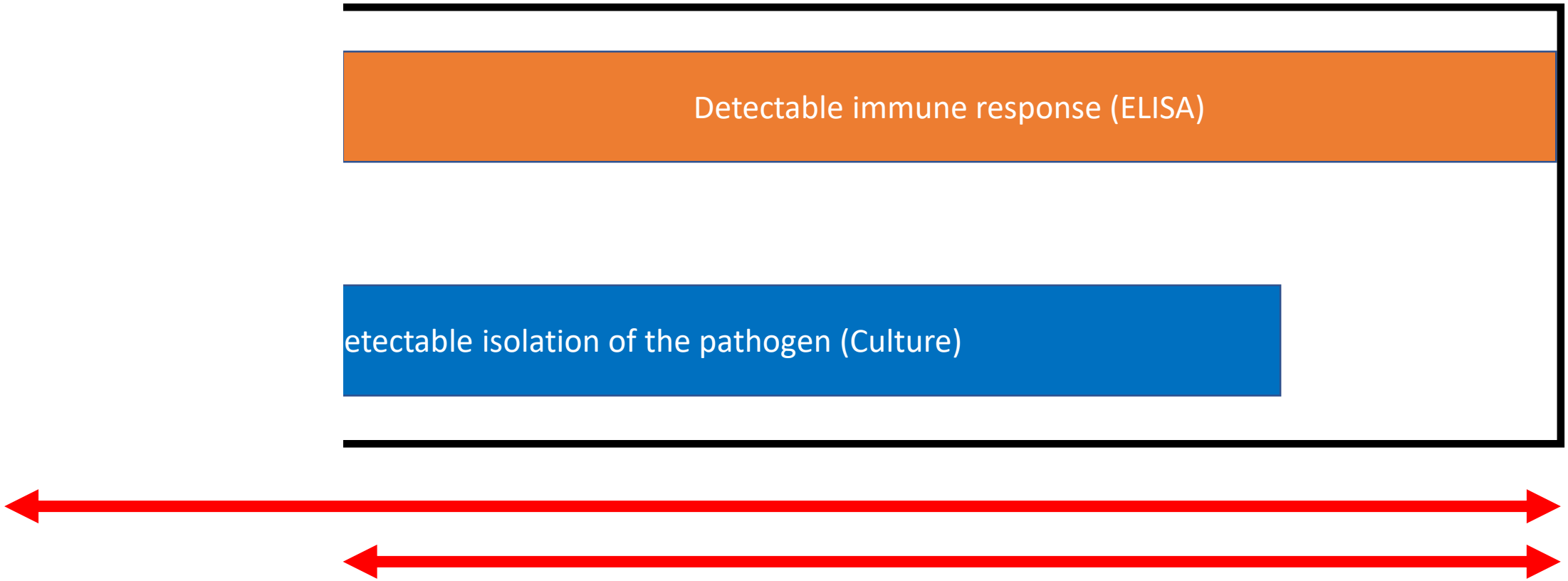
Test methods	**10**	**Description of the tests under evaluation**, in sufficient detail to allow replication, **and/or cite references**
	11	Rationale for choosing the **tests under evaluation in relation to their purpose**
	12	Definition of and rationale for test positivity cut-offs or result categories of **the tests under evaluation**, distinguishing pre-specified from exploratory
	13	Whether clinical information was available to the performers or readers of **the tests under evaluation**
Analysis	**14a**	**BLCM model** for estimating measures of diagnostic accuracy
	14b	**Definition and rationale of prior information and sensitivity analysis**
	15	How indeterminate results **of the tests under evaluation** were handled
	16	How missing data **of the tests under evaluation** were handled
	17	Any analyses of variability in diagnostic accuracy, distinguishing pre-specified from exploratory
	18	Intended sample size and how it was determined

RESULTS		
Participants	**19**	Flow of participants, using a diagram
	20	Baseline demographic and clinical characteristics of participants
	21	**Not applicable: the distribution of the targeted conditions is unknown, hence the use of BLCM**
	22	Time interval and any clinical interventions between **the tests under evaluation**
Test results	**23**	Cross tabulation of the **tests' results (or for continuous tests results their distribution by infection stage)**
	24	Estimates of diagnostic accuracy **under alternative prior specification** and their precision (such as 95% **credible/probability intervals**)
	25	Any adverse events from performing **the tests under evaluation**
DISCUSSION		

DISCUSSION		
	26	Study limitations, including sources of potential bias, statistical uncertainty, and generalisability
	27	Implications for practice, including the intended use and clinical role of **the tests under evaluation in relevant settings (clinical, research, surveillance etc.)**
OTHER INFORMATION		
	28	Registration number and name of registry
	29	Where the full study protocol can be accessed
	30	Sources of funding and other support; role of funders

No Gold Standard

Definition of the targeted infection status gets complicated but…”better”


Detectable immune response (ELISA)
etectable isolation of the pathogen (Culture)

Bayesian Analysis

Model description

Identifiability

Priors – Sensitivity Analysis

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Explicit description of the BLCM model

Model Assumptions

Identifiability

Definition and rationale of prior information and sensitivity analysis

Can the interested reader reproduce your results?

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Thank you!