

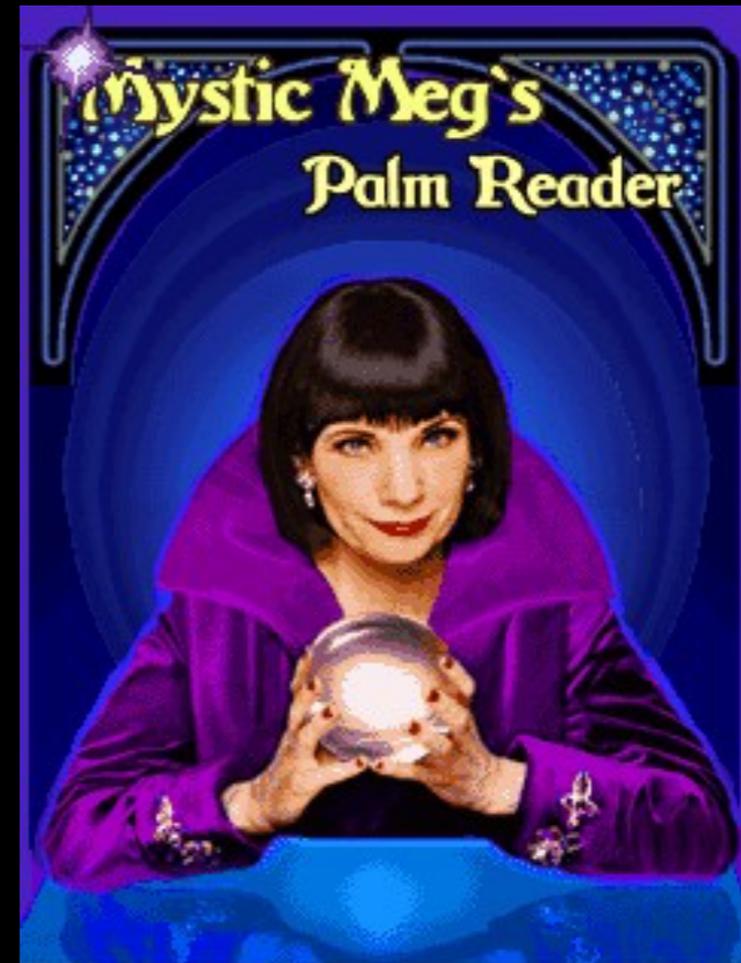
Supporting clinical decisions with physiologically guided metrics

Clinical Decisions

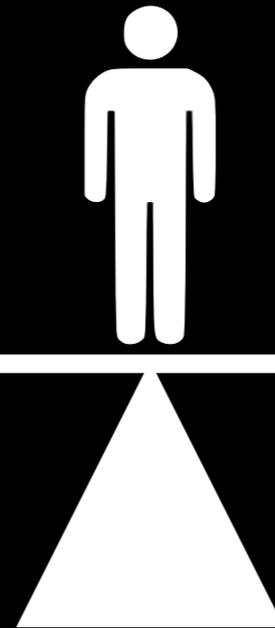
Both needed

Objective

Subjective



Clinical Decisions Balance



Objective

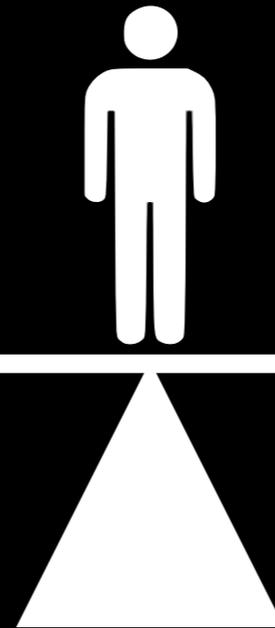


Subjective

patient report
palpation
diet



Clinical Decisions Balance



Objective



lab values
aspiration presence
mm of hyoid movement

Subjective



Dysphagia Management



Objective



confirm swallow
confirm aspiration
swallowing metrics (msec,mm)

Subjective

patient report
clinical exam
palpation
diet



Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

millimeters, counting, seconds

Reliability
(within-person &
between-person)

Validated

Normative Values

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

highly reliable observation: death, amputee

Reliability
(within-person &
between-person)

Validated

Normative Values

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

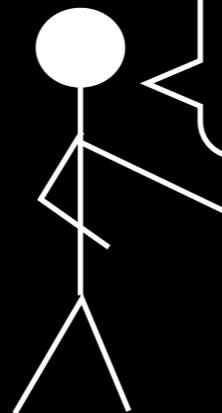
highly reliable observation: death, amputee

Reliability
(within-person &
between-person)

you and/or someone else would
consistently make the same decision

Validated

Normative Values



square
square
square
square



Person 1

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

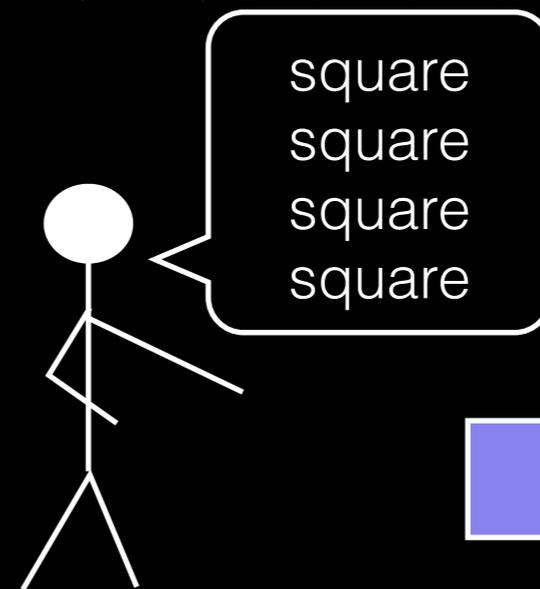
highly reliable observation: death, amputee

Reliability
(within-person &
between-person)

you and/or someone else would
consistently make the same decision

Validated

Normative Values



Person 1 - encounter 2

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

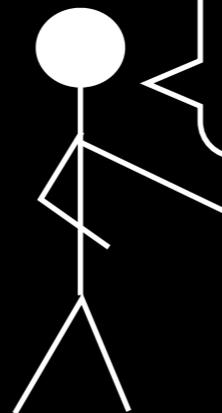
highly reliable observation: death, amputee

Reliability
(within-person &
between-person)

you and/or someone else would
consistently make the same decision

Validated

Normative Values



square
square
square
square



Person 2

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

highly reliable observation: death, amputee

Reliability
(within-person &
between-person)

you and/or someone else would have the
same outcome across multiple judgements

Validated

this judgement actually measures
what you think it measures

Normative Values

Normal values can be differentiated
from abnormal values

Each of us can do a clinical exam

But how objective vs subjective is it?

Clinical Examination

A B C

Function	OBJ	SBJ	Neither!
lingual strength (non swallow)			
lingual strength (swallow)			
swallow presence			
aspiration			
swallow delay			
hyo-laryngeal ROM			

