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

Obvious Judgement

Reliability
(within-person & between-person)

Validated

Normative Values

metric units, ranking, scoring measure

millimeters, counting, seconds
Objective

- Numeric Value: metric units, ranking, scoring measure
- Obvious Judgement: highly reliable observation: death, amputee
- Reliability (within-person & between-person)
- Validated
- Normative Values
<table>
<thead>
<tr>
<th>Objective</th>
</tr>
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<tbody>
<tr>
<td>Numeric Value</td>
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</tr>
<tr>
<td>Reliability</td>
</tr>
<tr>
<td>(within-person &amp; between-person)</td>
</tr>
<tr>
<td>you and/or someone else would consistently make the same decision</td>
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<td></td>
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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

Objective

Numeric Value

metric units, ranking, scoring measure

Obvious Judgement

highly reliable observation: death, amputee

Reliability

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

(within-person & between-person)

Validated

Normative Values
Objective

**Numeric Value**
- metric units, ranking, scoring measure
- weight, not volume

**Obvious Judgement**
- highly reliable observation: death, amputee
- you and/or someone else would have the same outcome across multiple judgements

**Reliability**
- (within-person & between-person)

**Validated**
- this judgement actually measures what you think it measures

**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 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
Objective

Numeric Value
- metric units, ranking, scoring measure

Obvious Judgement
- highly reliable observation: death, amputee
- you and/or someone else would have the same outcome across multiple judgements

Reliability (within-person & between-person)

Validated
- the judgement actually measures what you think it measures

Normative Values
- normal values can be differentiated from abnormal values
SLP A - Hey I’m thinking about buying X device. Anyone use it?

SLP B - Yes! I love X device. I’ve seen lots of *success*

IH - Cool! Can you define *success*?

SLP B - 🤔
Each of us can do a clinical exam

But how objective vs subjective is it?
Activity

The clinical examination
How objective vs subjective is it?
Clinical Evaluation

How objective vs subjective is it?

- Objective
- Subjective
- Neither / Don’t even try
<table>
<thead>
<tr>
<th>Function</th>
<th>OBJ</th>
<th>SBJ</th>
<th>Neither!</th>
</tr>
</thead>
<tbody>
<tr>
<td>lingual strength (non swallow)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lingual strength (swallow)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>swallow presence</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>aspiration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>swallow delay</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>hyo-laryngeal ROM</td>
<td></td>
<td></td>
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**Clinical Examination**

- **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
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<td>hyoid ROM</td>
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<tr>
<td>swallow delay</td>
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<tr>
<td>LVC</td>
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**Objective**

- Numeric Value: metric units, ranking, scoring measure
- Obvious Judgement: highly reliable observation: death, amputee
- Reliability: 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