

Outline of Validation Study Methodology for Assessing the Accuracy of Technologies/Methods Measuring Patient Anatomy

- Identify Surgery Requirements
 - Measurement metrics (what need to be measurement, e.g. the diameter of the hip socket)
 - Performance criteria (how good the measurement should be achieved, e.g. accuracy, precision, etc.)
 - ...
- Choices of Technologies/Methods
 - Selection strategy
 - Inclusion criteria
 - Exclusion criteria
 - Selection procedures
 - Abstract for collection
 - Detail reading for choosing
- Sample Size Estimation
 - Find Sample size recommendation from similar studies to make distinct statistical analysis, e.g. reliability and validity
- Data Collection
 - Design Repeatable, Reliable, Reproducible and consistent measurement procedures
 - Method-based measurement procedure design
 - Manual measurements procedure design
 - Measurement procedures per trial
 - Repeated trials
- Quality Evaluation
 - Define reliability
 - Define validity