# Labral Repair Dataset – Field Definitions Guide Core Identifiers

Definitions for the Data Library to be created from videos for creation of CSV database. Each case will have a Single surgeon input that captures the details of each case and then a monthly summary of the total details of that surgeon.

• Case ID  
 Unique identifier for each surgical case in the dataset.

• Surgeon ID  
 Unique identifier assigned to each surgeon. Used to track performance across cases.

## Phase Based Metrics

Each surgical step includes two metrics:  
• Duration (min): Time spent actively performing the step.  
• Idle Time (min): Periods of inactivity within the step. Idle time is calculated as:  
 - The period between visual confirmation of tool readiness and the actual start of action,  
 - Any detectable pause in instrument motion lasting longer than a predefined threshold (e.g., 3 seconds) during an active phase,  
 - Any time where no instruments are visualized within the joint for greater than 10 consecutive seconds.

## Overall Phase Metrics

• Total Procedure Time (min)  
 Sum of all active and idle phase durations.  
• Total Idle Time (min)  
 Sum of idle time across all phases.

## Event-Based Metrics

• Electrocautery Usage (%)  
 Proportion of procedure time using the electrocautery probe for hemostasis or tissue ablation.  
• Bleeding Events  
 Discrete observed instances of bleeding, annotated for severity and whether they were controlled.  
•Suture Passage Failure  
 Count of instances during case where suture passage attempt was unsuccessful.

## Implant & Instrument Utilization

• Number of Implants  
 Number of suture anchors used in the procedure.  
• Number of Disposables  
 Count of single-use tools used (e.g., suture passers, cannulas).  
• Time to Pass First Suture (min)  
 Time from the start of suture passage to the successful pull-through of the first suture limb.

## Monthly Surgeon Summary Fields

These are averaged across all procedures per surgeon per month:  
• Total Procedures (Monthly)  
 Volume of shoulder labral repairs completed.  
• Avg Procedure Time / Idle Time (min)  
 Mean durations across all procedural steps and idle segments.  
• Avg Electrocautery Usage (%)  
 Average cautery use during surgery.  
• Avg Bleeding Events / Anchor Repositions  
 Indicators of intraoperative challenges and surgical precision.  
• Avg Implants / Disposables per Case  
 Useful for resource planning and cost efficiency.  
• Avg Time to First Suture (min)  
 Metric for assessing efficiency of suture passage.  
• Avg Step Durations by Phase  
 - Diagnostic Arthroscopy  
 - Glenoid Preparation  
 - Labral Mobilization   
 - Anchor Placement  
 - Suture Passage  
 - Suture Tensioning  
 - Final Inspection