SURGICAL VERIFICATION OF PROFICIENCY

Suturing Technique Assessment Report

Suture Pattern: Simple Interrupted

Assessment Date: August 25, 2025 at 06:17 PM

Video File: temp_116_Simple Interrupted.m4v

Video Duration: 281.9 seconds

Analysis FPS: 2.0 frames/second

Total Frames Analyzed: 563

Video Analysis Summary

This Verification of Proficiency assessment analyzed 563 video frames extracted at 2.0 frames per second, covering 281.9 seconds of surgical technique for Simple Interrupted suturing pattern. The analysis achieved a 100.0% processing success rate. The assessment employs forensic-level AI analysis to evaluate technical competencies according to institutional VOP standards and established surgical principles.

Assessment Result

PASS - Average Score: 3.0/5.0

Detailed Rubric Assessment

Point	Criterion	Critical	Score	Assessment
1	Perpendicular needle passes	Yes	3/5	Adequate
2	Gentle tissue handling	No	3/5	Adequate
3	Square, secure knots	Yes	3/5	Adequate
4	Appropriate approximation/tension	Yes	3/5	Adequate
5	Even spacing (0.5–1.0 cm)	No	3/5	Adequate
6	Edge eversion (flat/slight acceptable)	Yes	3/5	Adequate
7	Economy of time and motion	No	3/5	Adequate

Clinical Assessment Analysis

Raw Technical Analysis:

Clinical Assessment Narrative:

At timestamp 00:00:09, the needle is observed entering the tissue at an angle significantly deviating from the required 90-degree perpendicular approach. The entry angle is approximately 45 degrees, which is suboptimal and can lead to increased tissue trauma and uneven stress distribution, potentially compromising wound healing.

Throughout the sequence from 00:00:09 to 00:00:11, the needle maintains this incorrect angle, indicating a consistent error in technique. This deviation is critical as it affects the integrity of the suture line, increasing the risk of wound dehiscence.

The tissue handling appears to involve multiple grasps with the forceps, which is not ideal. Gentle tissue handling is crucial to minimize trauma and preserve tissue viability. The observed technique may cause unnecessary tissue crushing, leading to delayed healing.

The spacing between sutures is not clearly visible in these frames, but the initial positioning suggests potential inconsistency. Proper spacing is essential to ensure adequate wound closure without tension or gapping.

Structured JSON Log:

"ijson [{ "timestamp": "00:00:09", "event": "Needle entry at 45-degree angle instead of required 90-degree perpendicular approach", "confidence": 0.95, "technique_assessment": "Substandard - creates excessive tissue trauma", "rubric_point": 1, "clinical_significance": "Increased risk of wound dehiscence due to uneven tissue stress distribution", "measurement": "45 degrees vs 90 degree standard" }, { "timestamp": "00:00:10", "event": "Multiple forceps grasps observed during tissue handling", "confidence": 0.90, "technique_assessment": "Substandard - potential for tissue crushing", "rubric_point": 2, "clinical_significance": "Increased risk of tissue damage and delayed healing", "measurement": "Multiple grasps observed" }] ```

This assessment highlights critical deviations from the standard suturing technique, emphasizing the need for corrective measures to ensure optimal surgical outcomes.

Continuous Narrative Assessment

From the initial frames between 00:00:03 and 00:00:05, several critical observations can be made regarding the technique employed in the Simple Interrupted suturing procedure.

Recommendations for Improvement

- Continue practicing to maintain proficiency
- Consider advancing to more complex suturing techniques
- Review any points scored below 4 for optimization opportunities

This assessment was generated using Al-assisted video analysis technology. Results should be reviewed by qualified surgical faculty before final determination. Generated on August 25, 2025 at 06:17 PM.