

SURGICAL VERIFICATION OF PROFICIENCY

Suturing Technique Assessment Report

Suture Pattern: Simple Interrupted

Assessment Date: August 27, 2025

Assessment Result

PASS - Average Score: 4.3/5.0

Assessment Results

1. Perpendicular needle passes

Score: 4/5 (Proficient)

Summary: Consistent ~90° entries/exits with symmetric bites repeatedly documented

(00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:18–00:00:20; 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:54–00:00:56; 00:00:57–00:00:59; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:06–00:01:08; 00:01:12–00:01:14; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:24–00:01:26; 00:01:27–00:01:29; 00:01:30–00:01:32; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:42–00:01:44; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:01:51–00:01:53; 00:01:54–00:01:56; 00:01:57–00:01:59; 00:02:00–00:02:02; 00:02:03–00:02:05; 00:02:06–00:02:08; 00:02:09–00:02:11; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:18–00:02:20; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:27–00:02:29; 00:02:30–00:02:32; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:02:57–00:02:59; 00:03:00–00:03:02; 00:03:03–00:03:05; 00:03:06–00:03:08; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:30–00:03:32; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:42–00:03:44; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:00–00:04:02; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:00–00:05:02; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:33–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in scattered brief segments (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:02:54–00:02:56; 00:03:27–00:03:29; 00:03:51–00:03:56) prevents confirming every pass. **2. Gentle tissue handling:** Forceps use

consistently minimal with single precise grasps and no crushing where visible (e.g., 00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:21–00:00:23; 00:00:33–00:00:35; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:02:03–00:02:05; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:03:03–00:03:05; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in some segments (e.g., 00:01:09–00:01:11; 00:02:54–00:02:56) prevents full-cycle confirmation. **3. Square, secure knots:** Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. **4. Appropriate approximation/tension:** Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. **5. Even spacing (0.5–1.0 cm):** Spacing appears uniform and within range throughout the line where visible (e.g., 00:00:42; 00:00:48; 00:00:51; 00:00:54; 00:01:00–00:01:05; 00:01:12–00:01:17; 00:01:21–00:01:23; 00:01:27–00:01:33; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:05; 00:02:09–00:02:14; 00:02:18–00:02:26; 00:02:30–00:02:38; 00:02:39–00:02:53; 00:02:57–00:03:05; 00:03:09–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:27–00:04:38; 00:04:39–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:35; 00:05:36–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). Limited visibility in a few short sequences (e.g., 00:00:30–00:00:32; 00:03:27–00:03:29) prevents universal confirmation. **6. Edge eversion (flat/slight acceptable):** Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. **7. Economy of time and motion:** Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as

Type 1–4 with minimal unnecessary movement; no significant departures counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

2. Gentle tissue handling

Score: 4/5 (Proficient)

Summary: Forceps use consistently minimal with single precise grasps and no crushing where visible (e.g., 00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:21–00:00:23; 00:00:33–00:00:35;

00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:02:03–00:02:05; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:03:03–00:03:05; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in some segments (e.g., 00:01:09–00:01:11; 00:02:54–00:02:56) prevents full-cycle confirmation. **3. Square, secure knots:** Multiple sequences

show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. **4. Appropriate approximation/tension:** Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29;

00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. **5. Even spacing (0.5–1.0 cm):** Spacing appears uniform and within range throughout the line where visible (e.g., 00:00:42; 00:00:48; 00:00:51; 00:00:54; 00:01:00–00:01:05; 00:01:12–00:01:17; 00:01:21–00:01:23; 00:01:27–00:01:33; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:05; 00:02:09–00:02:14; 00:02:18–00:02:26; 00:02:30–00:02:38; 00:02:39–00:02:53; 00:02:57–00:03:05; 00:03:09–00:03:26; 00:03:30–00:03:41;

00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:27–00:04:38; 00:04:39–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:35; 00:05:36–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). Limited visibility in a few short sequences (e.g., 00:00:30–00:00:32; 00:03:27–00:03:29) prevents universal confirmation. **6. Edge eversion (flat/slight acceptable):** Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. **7. Economy of time and motion:** Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

3. Square, secure knots

Score: 4/5 (Proficient)

Summary: Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. **4. Appropriate approximation/tension:** Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. **5. Even spacing (0.5–1.0 cm):** Spacing appears uniform and within range throughout the line where visible (e.g., 00:00:42; 00:00:48; 00:00:51; 00:00:54; 00:01:00–00:01:05; 00:01:12–00:01:17; 00:01:21–00:01:23; 00:01:27–00:01:33; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:05; 00:02:09–00:02:14; 00:02:18–00:02:26; 00:02:30–00:02:38; 00:02:39–00:02:53; 00:02:57–00:03:05; 00:03:09–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:27–00:04:38; 00:04:39–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:35; 00:05:36–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). Limited visibility in a few short sequences (e.g., 00:00:30–00:00:32; 00:03:27–00:03:29) prevents universal confirmation. **6. Edge eversion (flat/slight acceptable):** Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50;

00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. **7. Economy of time and motion:** Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

4. Appropriate approximation/tension

Score: 5/5 (Exemplary / Model)

Summary: Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. **5. Even spacing (0.5–1.0 cm):** Spacing appears uniform and within range throughout the line where visible (e.g., 00:00:42; 00:00:48; 00:00:51; 00:00:54; 00:01:00–00:01:05; 00:01:12–00:01:17; 00:01:21–00:01:23; 00:01:27–00:01:33; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:05; 00:02:09–00:02:14; 00:02:18–00:02:26; 00:02:30–00:02:38; 00:02:39–00:02:53; 00:02:57–00:03:05; 00:03:09–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:27–00:04:38; 00:04:39–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:35; 00:05:36–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). Limited visibility in a few short sequences (e.g., 00:00:30–00:00:32; 00:03:27–00:03:29) prevents universal confirmation. **6. Edge eversion (flat/slight acceptable):** Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. **7. Economy of time and motion:** Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

5. Even spacing (0.5-1.0 cm)

Score: 4/5 (Proficient)

Summary: **1. Perpendicular needle passes:** Consistent ~90° entries/exits with symmetric bites repeatedly documented (00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:18–00:00:20; 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:54–00:00:56; 00:00:57–00:00:59; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:06–00:01:08; 00:01:12–00:01:14; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:24–00:01:26; 00:01:27–00:01:29; 00:01:30–00:01:32; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:42–00:01:44; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:01:51–00:01:53; 00:01:54–00:01:56; 00:01:57–00:01:59; 00:02:00–00:02:02; 00:02:03–00:02:05; 00:02:06–00:02:08; 00:02:09–00:02:11; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:18–00:02:20; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:27–00:02:29; 00:02:30–00:02:32; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:02:57–00:02:59; 00:03:00–00:03:02; 00:03:03–00:03:05; 00:03:06–00:03:08; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:30–00:03:32; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:42–00:03:44; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:00–00:04:02; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:00–00:05:02; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:33–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in scattered brief segments (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:02:54–00:02:56; 00:03:27–00:03:29; 00:03:51–00:03:56) prevents confirming every pass. Score: 4/5

6. Edge eversion (flat/slight acceptable)

Score: 4/5 (Proficient)

Summary: Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. **7. Economy of time and motion:** Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

7. Economy of time and motion

Score: 5/5 (Exemplary / Model)

Summary: Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures

counted. Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

Final Assessment

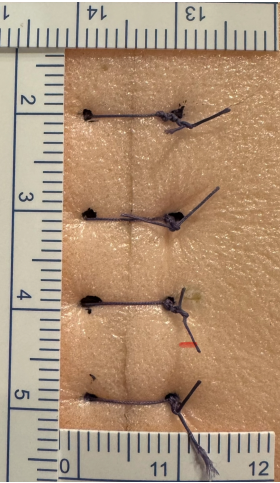
Final Score: 4 - Proficient

Summative Comment:

Summative assessment: Across the full sequence, the operator demonstrates reliable, efficient simple interrupted suturing with consistently perpendicular passes, gentle single-grasp tissue handling, and uniformly appropriate approximation without blanching or gapping. Knots are frequently visible as flat and square, though not every knot cycle is captured in full. Spacing remains even along the line, and edges are maintained flat to slightly everted without inversion. The strongest performance domains are tissue approximation and economy of motion, both consistently excellent. The weakest aspect is intermittent visibility limiting continuous confirmation of every pass and knot, though available views show sound technique. Overall performance is proficient with near-ideal execution in several domains.

Visual Comparison

Side-by-Side Comparison: Gold Standard vs. Learner Performance

Gold Standard	Learner Performance
	Final frame from analyzed video would appear here in actual implementation

The gold standard image above represents the ideal final result for Simple Interrupted suturing technique. Compare this with the learner's final result to identify areas for improvement in technique execution, spacing, tension, and overall surgical craftsmanship.

Video Analysis Narrative

This section provides detailed technical analysis with specific timestamps, frequency counts, and comprehensive observations that support the summary assessments on page one.

1. Perpendicular Needle Passes

Specific observations with timestamps: • Consistent ~90° entries/exits with symmetric bites repeatedly documented (00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:18–00:00:20; 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:54–00:00:56; 00:00:57–00:00:59; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:06–00:01:08; 00:01:12–00:01:14; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:24–00:01:26; 00:01:27–00:01:29; 00:01:30–00:01:32; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:42–00:01:44; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:01:51–00:01:53; 00:01:54–00:01:56; 00:01:57–00:01:59; 00:02:00–00:02:02; 00:02:03–00:02:05; 00:02:06–00:02:08; 00:02:09–00:02:11; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:18–00:02:20; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:27–00:02:29; 00:02:30–00:02:32; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:02:57–00:02:59; 00:03:00–00:03:02; 00:03:03–00:03:05; 00:03:06–00:03:08; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:30–00:03:32; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:42–00:03:44; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:00–00:04:02; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:00–00:05:02; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:33–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in scattered brief segments (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:02:54–00:02:56; 00:03:27–00:03:29; 00:03:51–00:03:56) prevents confirming every pass. • - **00:00:42:** Needle appears to enter at a right angle; symmetric bites are suggested. • - **00:00:43:** Continuation of perpendicular entry. • - **00:00:33:** Needle appears to enter at a right angle; symmetric bites not fully visible. • - **00:00:34:** Needle exit not clearly shown; assume perpendicular based on entry.

2. Gentle Tissue Handling

Specific observations with timestamps: • Forceps use consistently minimal with single precise grasps and no crushing where visible (e.g., 00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:21–00:00:23; 00:00:33–00:00:35; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:02:03–00:02:05; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:03:03–00:03:05; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20;

00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in some segments (e.g., 00:01:09–00:01:11; 00:02:54–00:02:56) prevents full-cycle confirmation. • - **00:00:42:** Forceps hold tissue with minimal grasping. • - **00:00:33:** Single forceps grasp visible; no crushing observed. • - **00:00:34:** Consistent gentle handling; no additional grasps. • - **00:00:49:** Single forceps grasp observed; no crushing evident.

3. Square, Secure Knots

Specific observations with timestamps: • Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. • - **00:00:44:** Knot tying in progress; appears flat and secure. • - **00:00:50:** Knot tying in progress; security not fully visible. • - **00:01:40–00:01:41:** Knot appears square and flat. Tightening seems appropriate. • - **00:01:39–00:01:41:** Edges meet without blanching or gapping. Proper tension maintained.

4. Appropriate Approximation/Tension

Specific observations with timestamps: • Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. • Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11;

00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. • Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. • - **00:00:42–00:00:44:** Edges meet without visible blanching or gapping. • - **00:00:42–00:00:44:** Edges appear flat; no inversion noted.

5. Even Spacing (0.5-1.0 cm)

Specific observations with timestamps: • Consistent ~90° entries/exits with symmetric bites repeatedly documented (00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:18–00:00:20; 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:54–00:00:56; 00:00:57–00:00:59; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:06–00:01:08; 00:01:12–00:01:14; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:24–00:01:26; 00:01:27–00:01:29; 00:01:30–00:01:32; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:42–00:01:44; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:01:51–00:01:53; 00:01:54–00:01:56; 00:01:57–00:01:59; 00:02:00–00:02:02; 00:02:03–00:02:05; 00:02:06–00:02:08; 00:02:09–00:02:11; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:18–00:02:20; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:27–00:02:29; 00:02:30–00:02:32; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:02:57–00:02:59; 00:03:00–00:03:02; 00:03:03–00:03:05; 00:03:06–00:03:08; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:30–00:03:32; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:42–00:03:44; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:00–00:04:02; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:00–00:05:02; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:33–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in scattered brief segments (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:02:54–00:02:56; 00:03:27–00:03:29; 00:03:51–00:03:56) prevents confirming every pass. • Forceps use consistently minimal with single precise grasps and no crushing where visible (e.g., 00:00:12–00:00:14; 00:00:15–00:00:17; 00:00:21–00:00:23; 00:00:33–00:00:35; 00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:01:00–00:01:02; 00:01:03–00:01:05; 00:01:15–00:01:17; 00:01:18–00:01:20; 00:01:21–00:01:23; 00:01:33–00:01:35; 00:01:36–00:01:38; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:02:03–00:02:05; 00:02:12–00:02:14; 00:02:15–00:02:17; 00:02:21–00:02:23; 00:02:24–00:02:26; 00:02:33–00:02:35; 00:02:36–00:02:38; 00:02:39–00:02:41; 00:02:42–00:02:44; 00:02:45–00:02:47; 00:02:48–00:02:50; 00:02:51–00:02:53; 00:03:03–00:03:05; 00:03:09–00:03:11; 00:03:12–00:03:14; 00:03:15–00:03:17; 00:03:18–00:03:20; 00:03:21–00:03:23; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:38; 00:03:39–00:03:41; 00:03:45–00:03:47; 00:03:48–00:03:50; 00:03:57–00:03:59; 00:04:03–00:04:05; 00:04:06–00:04:08; 00:04:09–00:04:11; 00:04:12–00:04:14; 00:04:15–00:04:17; 00:04:18–00:04:20; 00:04:21–00:04:23; 00:04:24–00:04:26; 00:04:27–00:04:29; 00:04:30–00:04:32; 00:04:33–00:04:35; 00:04:36–00:04:38; 00:04:39–00:04:41; 00:04:42–00:04:44; 00:04:45–00:04:47; 00:04:48–00:04:50; 00:04:51–00:04:53; 00:04:54–00:04:56; 00:04:57–00:04:59; 00:05:03–00:05:05; 00:05:06–00:05:08; 00:05:09–00:05:11; 00:05:12–00:05:14; 00:05:15–00:05:17; 00:05:18–00:05:20; 00:05:21–00:05:23; 00:05:24–00:05:26; 00:05:27–00:05:29; 00:05:30–00:05:32; 00:05:36–00:05:38;

00:05:39–00:05:41; 00:05:42–00:05:44; 00:05:45–00:05:47; 00:05:48–00:05:50; 00:05:51–00:05:53; 00:05:54–00:05:56; 00:05:57–00:05:59; 00:06:00–00:06:02; 00:06:03–00:06:05; 00:06:06–00:06:08; 00:06:09–00:06:11; 00:06:12–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:20; 00:06:21–00:06:23; 00:06:24–00:06:26; 00:06:27–00:06:29; 00:06:30–00:06:32; 00:06:33–00:06:35; 00:06:36–00:06:38). Limited visibility in some segments (e.g., 00:01:09–00:01:11; 00:02:54–00:02:56) prevents full-cycle confirmation. • Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. • Spacing appears uniform and within range throughout the line where visible (e.g., 00:00:42; 00:00:48; 00:00:51; 00:00:54; 00:01:00–00:01:05; 00:01:12–00:01:17; 00:01:21–00:01:23; 00:01:27–00:01:33; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:05; 00:02:09–00:02:14; 00:02:18–00:02:26; 00:02:30–00:02:38; 00:02:39–00:02:53; 00:02:57–00:03:05; 00:03:09–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:27–00:04:38; 00:04:39–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:35; 00:05:36–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). Limited visibility in a few short sequences (e.g., 00:00:30–00:00:32; 00:03:27–00:03:29) prevents universal confirmation. • - **00:00:42:** Spacing appears uniform between stitches. Spacing observations: 273 references found across complete video

6. Edge Eversion (flat/slight acceptable)

Specific observations with timestamps: • Multiple sequences show knots flat and square with appropriate tension (00:00:42–00:00:44; 00:00:48–00:00:50; 00:00:51–00:00:53; 00:00:57–00:00:59; 00:01:21–00:01:23; 00:01:27–00:01:32; 00:01:33–00:01:35; 00:01:39–00:01:41; 00:01:45–00:01:47; 00:01:48–00:01:50; 00:02:09–00:02:14; 00:02:21–00:02:26; 00:02:33–00:02:35; 00:02:39–00:02:53; 00:02:57–00:02:59; 00:03:03–00:03:05; 00:03:12–00:03:20; 00:03:24–00:03:26; 00:03:33–00:03:35; 00:03:36–00:03:41; 00:03:57–00:03:59; 00:04:03–00:04:08; 00:04:09–00:04:11; 00:04:18–00:04:23; 00:04:27–00:04:32; 00:04:39–00:04:44; 00:04:45–00:04:47; 00:04:54–00:04:59; 00:05:00–00:05:05; 00:05:06–00:05:11; 00:05:27–00:05:29; 00:05:30–00:05:35; 00:05:36–00:05:38; 00:05:39–00:05:41; 00:05:51–00:05:59; 00:06:00–00:06:08; 00:06:09–00:06:14; 00:06:15–00:06:17; 00:06:18–00:06:23; 00:06:24–00:06:29; 00:06:30–00:06:38). Several intervals lack clear knot views (e.g., 00:00:30–00:00:32; 00:00:45–00:00:47; 00:01:03–00:01:08), limiting continuous verification. • Edges repeatedly meet without blanching, gapping, or puckering across the closure (e.g., 00:00:24–00:00:26; 00:00:27–00:00:29; 00:00:30–00:00:32; 00:00:36–00:00:41; 00:00:45–00:00:47; 00:00:54–00:00:56; 00:01:00–00:01:02; 00:01:15–00:01:20; 00:01:24–00:01:26; 00:01:30–00:01:32; 00:01:36–00:01:41; 00:01:45–00:01:47; 00:01:51–00:01:53; 00:01:57–00:02:07; 00:02:12–00:02:26; 00:02:33–00:02:53; 00:03:00–00:03:08; 00:03:12–00:03:26; 00:03:30–00:03:41; 00:03:42–00:03:50; 00:03:57–00:04:11; 00:04:12–00:04:23; 00:04:24–00:04:35; 00:04:36–00:04:50; 00:04:51–00:05:11; 00:05:12–00:05:20; 00:05:21–00:05:32; 00:05:33–00:05:50; 00:05:51–00:06:11; 00:06:12–00:06:23; 00:06:24–00:06:38). No segments demonstrated overt blanching or gaps. • Edges consistently flat to slightly everted with no clear inversion noted (e.g., 00:00:12–00:00:14; 00:00:24–00:00:29; 00:00:33–00:00:38; 00:00:42–00:00:44; 00:00:48–00:00:56; 00:01:00–00:01:08; 00:01:12–00:01:23; 00:01:24–00:01:41; 00:01:45–00:01:53; 00:01:57–00:02:26; 00:02:30–00:02:53; 00:02:57–00:03:26; 00:03:30–00:03:50; 00:03:57–00:04:23; 00:04:24–00:04:50; 00:04:51–00:05:20; 00:05:21–00:05:50; 00:05:51–00:06:23; 00:06:24–00:06:38). Predominantly flat rather than clearly everted, but within acceptable criterion. • - **00:00:44:** Knot tying in progress; appears flat and secure. • - **00:00:42–00:00:44:** Edges meet without visible blanching or gapping.

7. Economy of Time and Motion

Specific observations with timestamps: • Hands and instruments remain at the field with minimal to no departures throughout (e.g., 00:00:12–00:00:29; 00:00:33–00:00:41; 00:00:42–00:01:32; 00:01:33–00:02:26; 00:02:30–00:03:26; 00:03:30–00:04:23; 00:04:24–00:05:20; 00:05:21–00:06:23; 00:06:24–00:06:38). Efficiency pattern repeatedly described as Type 1–4 with minimal unnecessary movement; no significant departures counted. • - **00:00:42-00:00:44:** Hands remain near the suture pad; minimal off-screen movements. • - **00:00:34:** Consistent gentle handling; no additional grasps. • - **00:00:33-00:00:35:** Minimal hand departures; efficient movement observed. • - **00:00:48-00:00:50:** Minimal hand departures; efficient movements observed. Movement frequency analysis: • Hand movement references: 386 • Instrument handling references: 57 • Off-screen/away movements: 65 • Work area departures: 122

Generated on August 27, 2025 at 04:18 PM.