

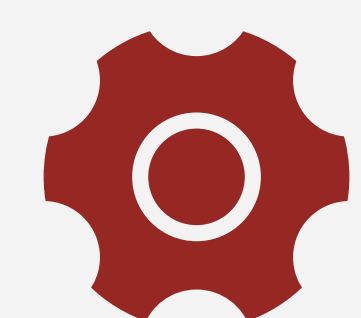
Development of Multi-Center Surgical Video Benchmarks for LPD

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Background & Objective

- Benchmarking is crucial for surgical quality improvement.
- AI enables comprehensive analysis, but LPD lacks standardized benchmarks.
- **Objective:** Establish surgical benchmarks for LPD using AI-assisted video evaluation.



Methods

- **Data:** 156 LPD videos from 4 centers.
- **AI Analysis:** Surgsmart AI extracted step duration, instrument usage, and bleeding events.
- **Benchmarking:** Applied Achievable Benchmark of Care (ABC) method.



Key Results: Benchmarks

Total Duration: **3 hours** Uncinate Process: **12 min**

Choledochojejunostomy: **8.5 min**

Pancreaticojejunostomy: **18.5 min**

Bleeding Events: **14** Instrument Usages: **19**



Conclusions

- First multi-dimensional surgical benchmark system for LPD established.
- Provides objective, data-driven evaluation standards for surgical quality.
- Lays a foundation for enhancing surgical standardization and optimizing feedback.