

'Laparoscopic Common Bile Duct Exploration Curriculum'

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WORKS IN PROGRESS

Background: Up to 18% of adults undergoing cholecystectomy for gallstones have common bile duct (CBD) stones.¹⁻³ Choledocholithiasis is commonly treated with a multistep process requiring several days of hospitalization. Alternative single-step pathways have been shown to be equally efficacious and less costly.⁴⁻⁵ Single-step management involves cholecystectomy at presentation with cholangiography and immediate bile duct clearance. The barrier to this becoming more common is a lack of surgical training in the technical and equipment-based aspects of immediate bile duct clearance. We propose a curriculum that will educate general surgery residents on how to perform a laparoscopic common bile duct exploration (LCBDE) through didactic sessions and focused practice on a validated LCBDE simulator.

Objectives: In completing the curriculum, the resident will:

- (1) Develop a greater understanding of clinical impact of choledocholithiasis and the implications on surgical practice
- (2) Describe the indications and contraindications for performing a LCBDE
- (3) Identify all the equipment needed to complete a LCBDE
- (4) Describe and perform all of the LCBDE procedural steps
- (5) Practice on validated LCBDE simulator
- (6) Complete both a didactic and hands-on skills assessment

Methods/Evaluation Plan: Residents will complete the didactic and hands-on components of the curriculum while they are rotating on the Minimally Invasive Surgery service. Pre-tests and post-tests will be performed encompassing the didactic knowledge and hands-on skills. The skills assessment will evaluate time to completion and utilize a standardized grading rubric ensuring competency and completion of all procedural steps. These results will be compared and analyzed for statistical difference with residents serving as their own controls. Further evaluation will also involve analyzing the frequency of technique utilization after increased resident education along with patient outcomes including length of stay and cost.

Conclusions: This curriculum will enable residents to competently perform LCBDEs. Successful curriculum implementation could result in increased utilization of LCBDE for choledocholithiasis management at WFBMC and subsequently result in cost savings and decreased patient length of stay.

References:

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