

TRAINING COMMUNITY GYNECOLOGIC SURGEONS TO PERFORM INTRAOPERATIVE CYSTOSCOPY: A COMPETENCY BASED TRAINING EXPERIENCE

Hypothesis / aims of study: To develop a reliable and objective training program for diagnostic cystoscopy with a rigid cystoscope.

Study design, materials and methods: Twenty-eight community gynecologists were trained to perform cystoscopy using a competency-based training approach. Baseline anonymous information included history of previous training, years of practice, confidence performing cystoscopy and number of incontinence surgeries, cystoscopies, and endoscopic procedures performed per month. Three five hour workshops were administered, including anatomy and equipment didactics, as well as the opportunity to practice cystoscopy on a training model. After trainees individually practiced and felt comfortable with their skills on the model, they were individually tested on a cadaver. Performance was evaluated with two instruments: a task-specific checklist and a global ratings scale based on the OSATS model [1]. Failure was defined as inability to complete all elements of the task-specific checklist for cystoscopic bladder examination. The trainees repeated testing until cystoscopic examination was successfully completed. Likert scales were employed during pre- and post-testing to assess confidence to perform the tasks required for diagnostic cystoscopy. The same examiner completed all assessment instruments.

Results: Twenty-four of 28 trainees successfully performed a systematic cadaveric bladder examination during the primary post-test. After debriefing the four trainees that initially failed, they were able to successfully complete the examination during a second trial. Trainee demographics are summarized in Table I. The median time to initially complete a successful cystoscopic examination was 161 seconds. The median task specific and global scores of successful exams were 18 (range 15-19) and 21 (range 16-28) respectively. Mean score was the highest for the global domains of Instrument Knowledge at 3.7 (± SD 0.5). Global domains of Instrument Handling and Time and Motion had the lowest mean scores at 2.4 (± SD 0.8) and 2.5 (± SD 0.7). Two of the four failures reported a history of prior training. Only one of 28 trainees reported personal confidence in their ability to perform cystoscopy to identify ureteral injury on the pre-test. All participants reported confidence in identifying ureteral injury at the conclusion of the course.

Interpretation of results: A competency-based training program can successfully improve the confidence and skill of community gynecologists to perform diagnostic cystoscopy.

Concluding message: Seasoned gynecologists may not be able to define when they have received enough instruction in terms of hands-on training with models, prior to acquisition of technical skills. Formal evaluation of technical skills is recommended after training to ensure competence.

TABLE I

Trainee Demographics	
Sex	20 of 28 female (71%)
Age	Median 51 (range 33-64)
Years of Practice	Median 19.5 (range 3-30)
Practice Patterns Prior to Course	
Cystoscopic Training Prior to Course	6 reported training during residency
Cystoscopic Examinations performed per month	6 trainees performed 1-5 procedures per month
Performance Successful Cysto Exams	
OSATS Task Specific	Median 18 (range 15-19) Maximum score 19
OSATS Global	Median 21 (range 16-28) Maximum score 28

Refer to 1.

Specialists that were tested

Global Rating Scale of Procedure Performance¹

Please circle the number corresponding to the candidate's performance regardless of the candidate's level of training.

Time and Motion	Instrument Handling	Knowledge of Instruments	Flow of Operation	Use of Assistants	Knowledge of Specific Procedure
1 Many unnecessary moves	1 Repeatedly makes tentative or awkward moves with instruments through inappropriate use	1 Frequently asked for wrong instrument or used inappropriate instrument	1 Frequently stopped operating and seemed unsure of next move	1 Consistently placed assistants poorly or failed to use assistants	1 Deficient knowledge Required specific instruction at most steps of operation
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5

Culloch W. Test

Nothing
No
HUMAN
No
use Exempt
Yes
No

Cystoscopy Pre-Course Survey I.1

1. Gender Male ___ Female ___

2. Age ___

3. Years in practice after completing OB/GYN Residency ___

4. Formal training cystoscopy?
None ___ Training in residency ___ Postgraduate training ___

5. Approximate number of stress incontinence procedures performed per month:
0 ___ 1-5 ___ 6-10 ___ greater than 10 ___

6. Approximate number of cystoscopic examinations performed per month:
0 ___ 1-5 ___ 6-10 ___ greater than 10 ___

7. Approximate number of laparoscopic or hysteroscopic procedures performed per month:
0 ___ 1-5 ___ 6-10 ___ greater than 10 ___

DIRECTIONS: For each item, please use the scale below and circle the letter that corresponds best to your response.

Not confident at all < A-----B-----C-----D-Completely Confident

Right now, if you were asked to use a rigid cystoscope to what extent are you confident in your ability to perform each of the following tasks: