

1° World Congress on Office  
Hysteroscopy and Resectoscopy  
and  
1° AGIF Annual Workshop  
on Endoscopy  
Bari - Italy May 18-21 2011



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Hysteroscopy and Resectoscopy  
Bari, May 18-20 2011

# OFFICE HYSTEROSCOPY



*THE AGIF's POINT OF VIEW*



Dipartimento Salute della Donna  
e Medicina Territoriale

E. RICCIARDI



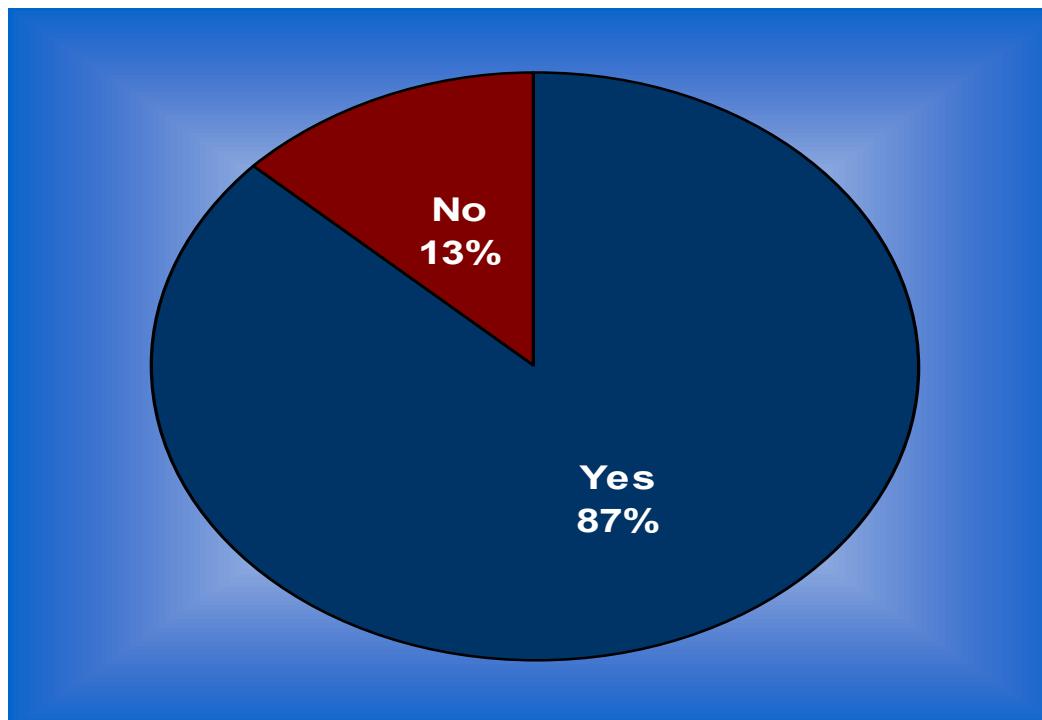
# A national survey among AGIF italian trainees

- ◆ 60 university hospitals covered
- ◆ 172 trainees answered the survey



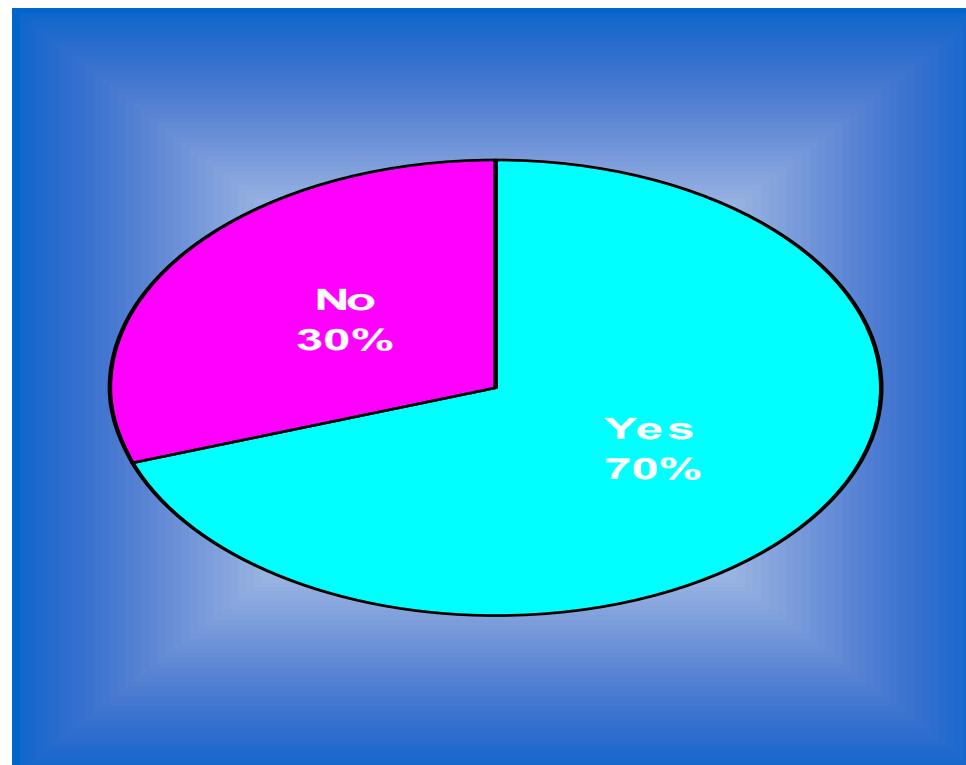
# A national survey among AGIF italian trainees

- Is office HSC being performed in your hospital?



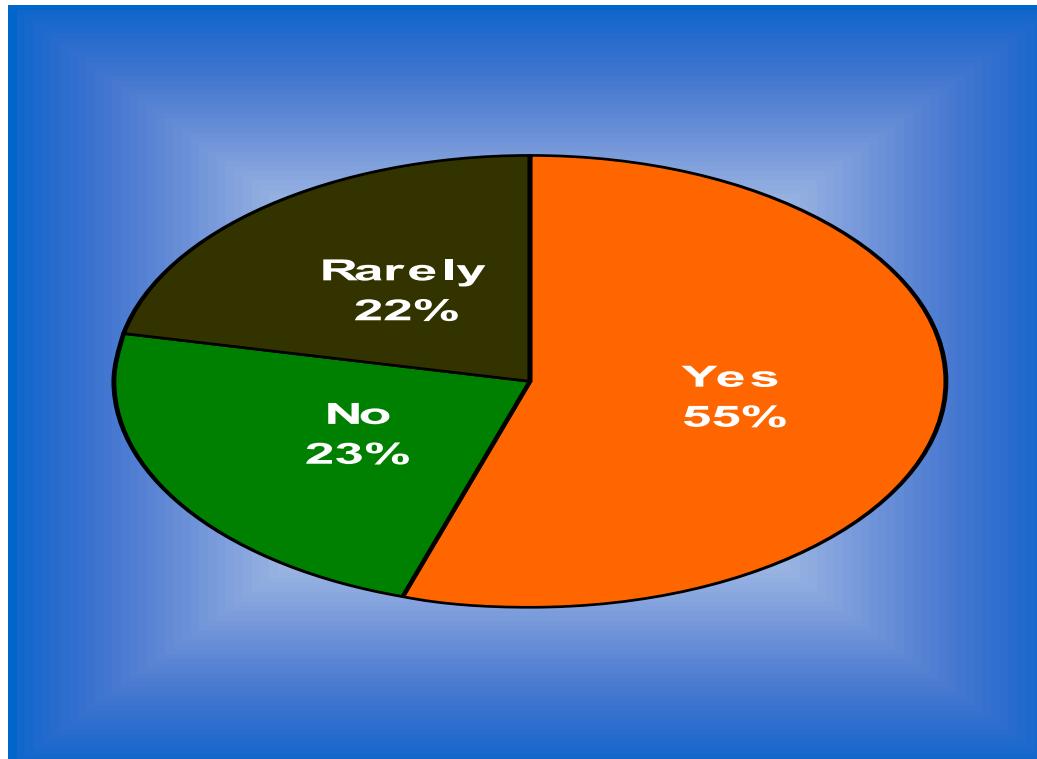
# A national survey among AGIF italian trainees

- Is office HSC a teaching subject in your residency program?



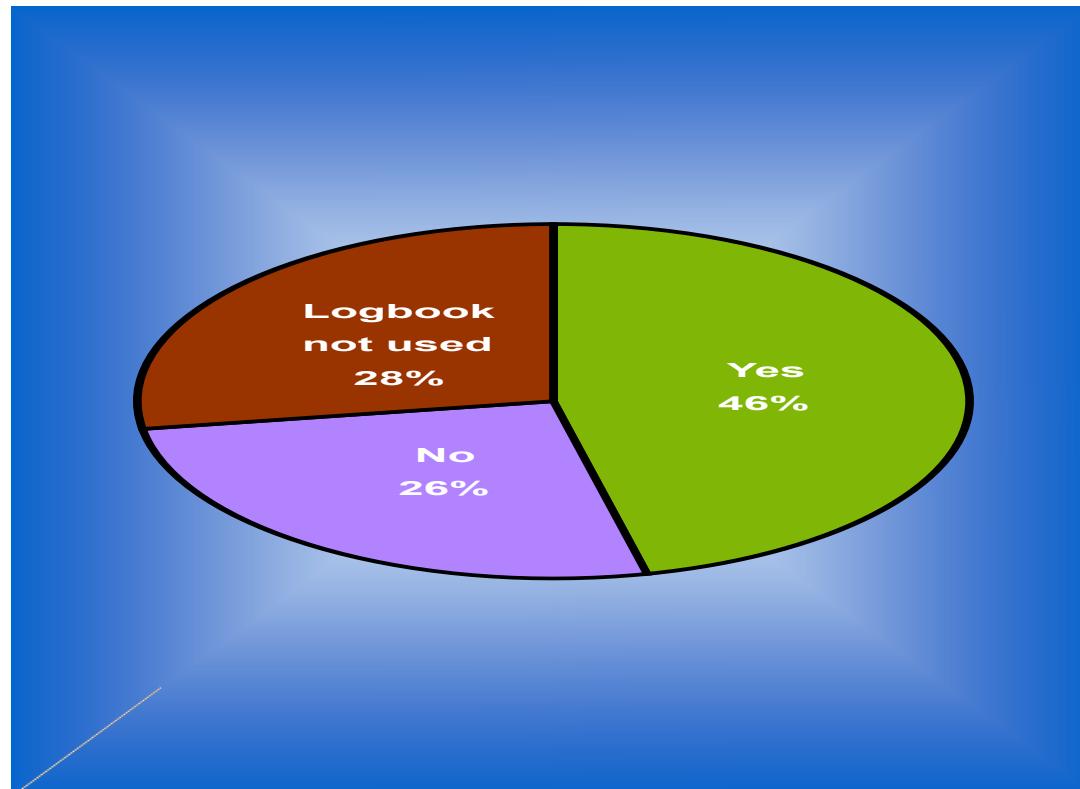
# A national survey among AGIF italian trainees

- Are you given the chance to perform office HSC as surgeon?



# A national survey among AGIF italian trainees

- Is office HSC considered as a surgery in the resident Logbook?



# TRAIN THE TRAINERS

- ◆ The quality of the trainer and his or her education is of outmost importance and the learning curve of the trainee could differ significantly based on the trainer's abilities. A continuous education of trainers should, therefore, become an integral part of postgraduate education.
- ◆ Just as for the trainees, the requirements for trainers should be clearly defined, including their qualification, the number of performed procedures needed for maintaining their surgical skills, continuous training in surgical and non-surgical skills, and an upgraded education in the “train the trainers” program.

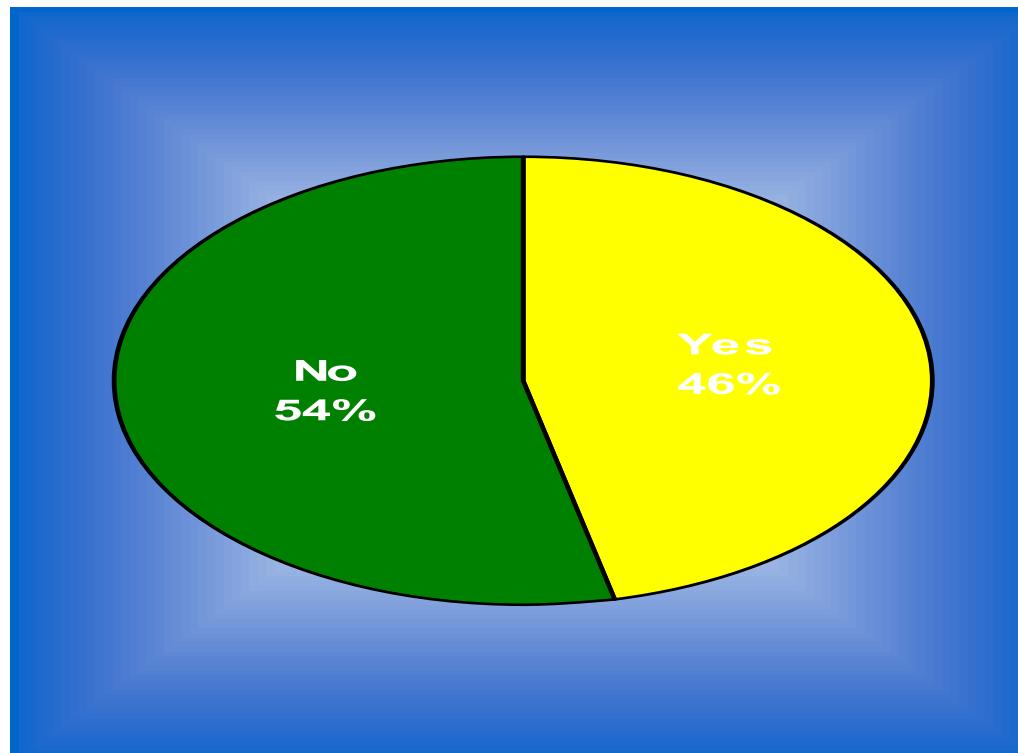
# MOVE ONE TO REACH MORE!

- ◆ National based networking could allow to move experts among hospitals
- ◆ Easier and Cheaper!
- ◆ Training both trainees and consultants
- ◆ Chance to create unique standards



# A national survey among AGIF italian trainees

- Are you satisfied with your office HSC training? What could improve your learning?



# THE APPRENTICESHIP MODEL: IS IT STILL A VALID OPTION?



- Historically, surgical training has occurred through an apprenticeship model .
- Fellows work closely with attending physicians to learn surgical procedures, but with an apprenticeship model there can be **significant variability** in the types and number of cases that a fellow is exposed to.

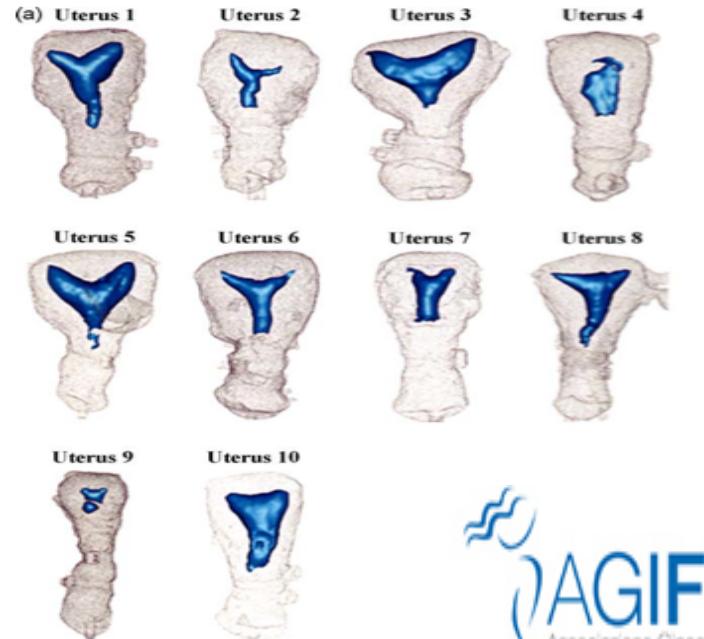
- Numbers of cases performed are often used as a **surrogate for competency**. However, several studies have shown that there is significant variation in the number of procedures required for individuals to achieve competency .
- As the field of surgical education advances, there are opportunities for the specialty of gynecologic endoscopy to **re-think the way** surgical education is provided to trainees.

# SIMULATION TRAINING

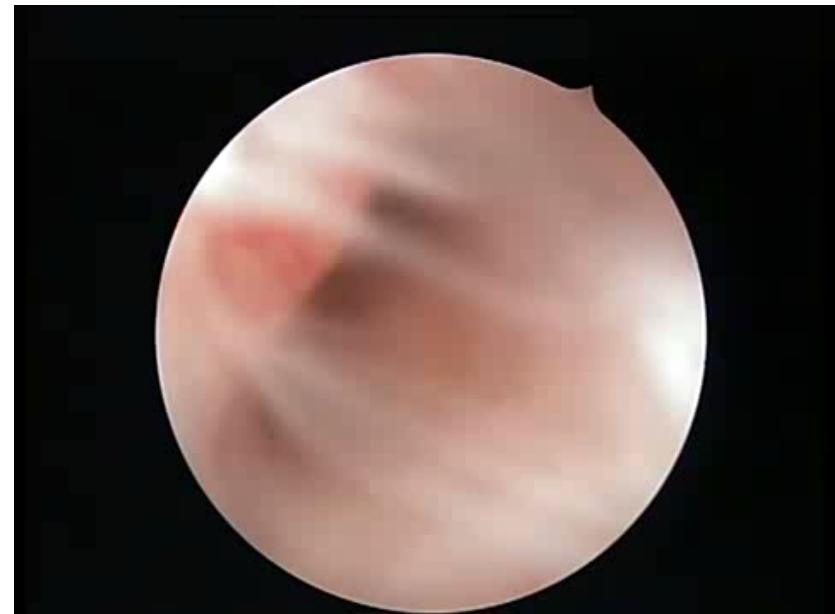
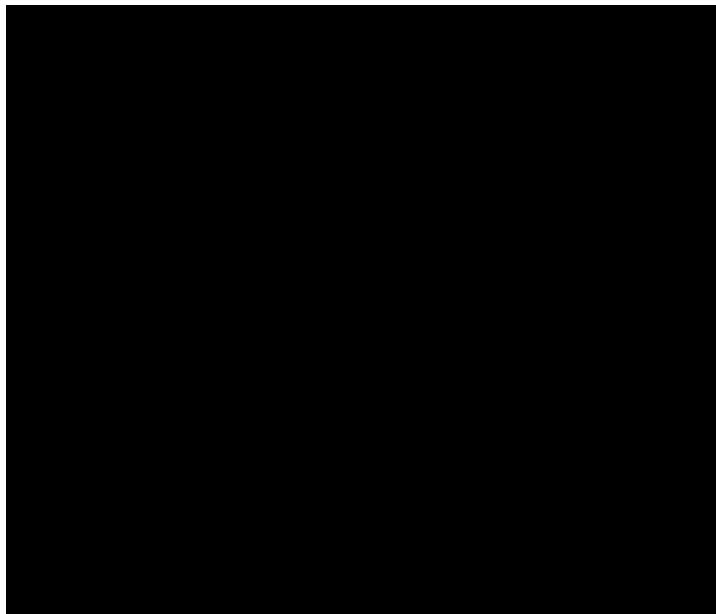


Boeing 747 Flight Simulator

10.000.000 Pounds

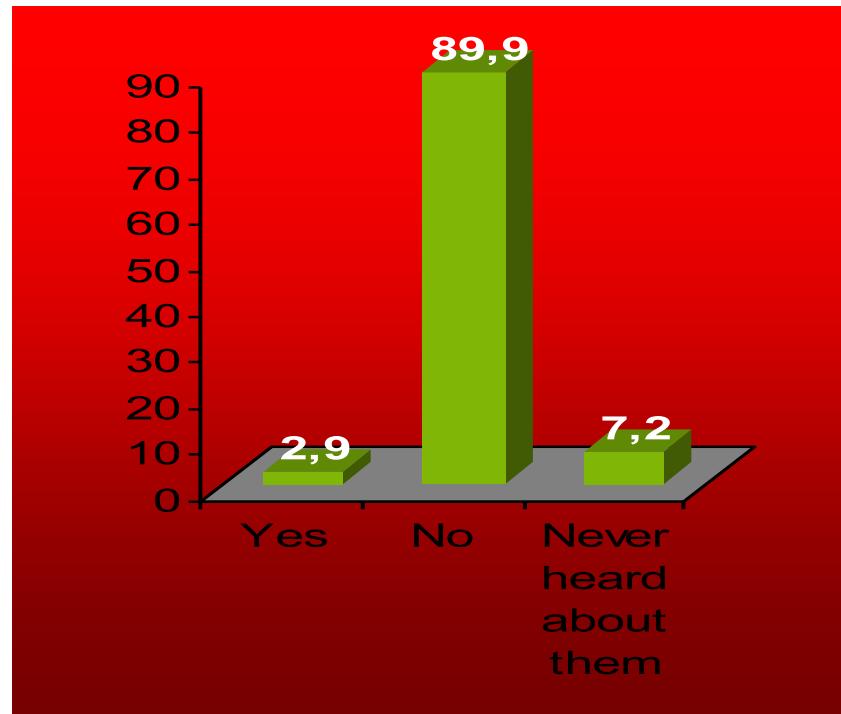


# SIMULATION TRAINING



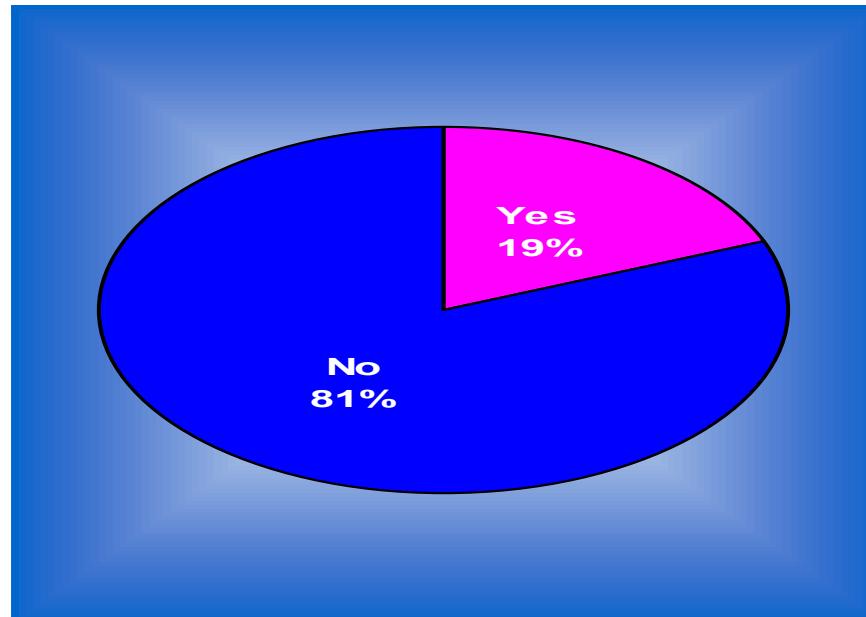
# A national survey among AGIF italian trainees

Have you ever had access to VR models or similar tools to learn office HSC?



# A national survey among AGIF italian trainees

- Does performance assessment happen? In which way?



***When it happens it relies mostly on the subjective opinion of the tutor***

# MONITORING

- ❖ Video-recording

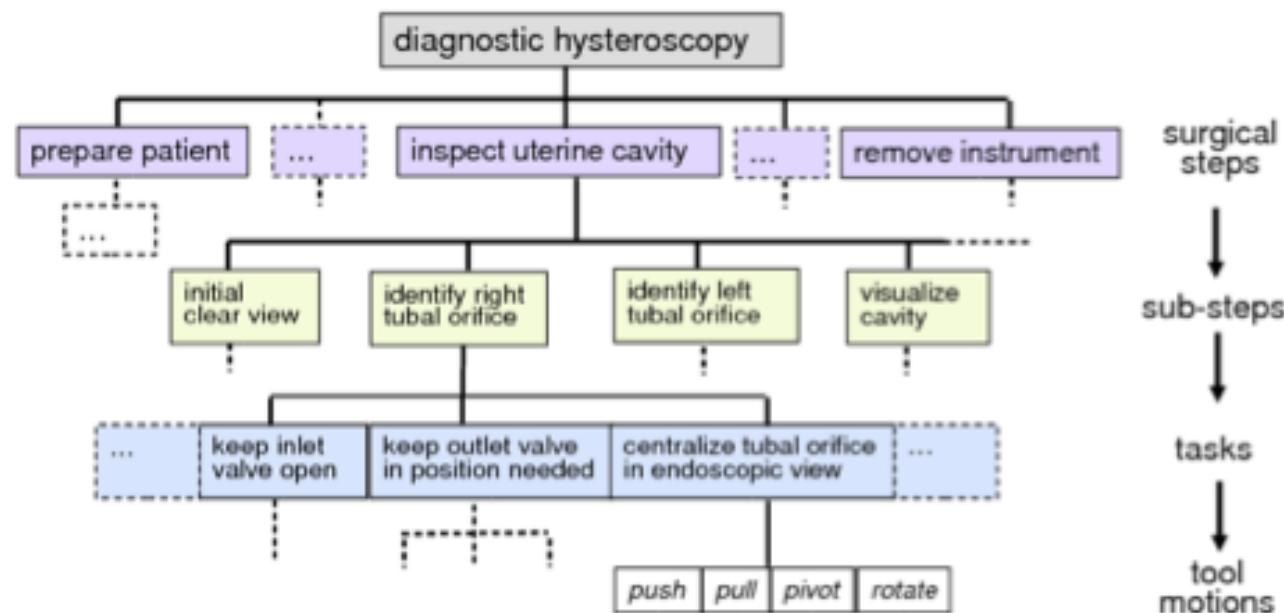


- ❖ Blind evaluation of both consultants and trainees performed surgeries

# Objective surgical performance assessment

- ◆ Hierarchical task decomposition
- ◆ Surgery specific performance metrics
- ◆ Integration into the simulation setup

# Hierarchical Task Decomposition



# Surgery Specific Performance Metrics

- ◆ Main Complications: excessive hypotonic fluid absorption, fluid overload syndrome, intraoperative hemorrhages, uterine perforations.
- ◆ Performance Metrics indicating amount of distension media used, the quality of endoscopic view, safe handling of the hysteroscope.
- ◆ Most important: quantification of properly visualized surface

# Surgical Simulation Setup

(a) novice, first trial      (b) novice, fifth trial      (c) expert surgeon, first trial

(d) novice, first trial      (e) novice, fifth trial      (f) expert surgeon, first trial

**Table 2.** Quantitative performance measurements for novice and expert interventions.

	novice, 1. trial	novice, 5. trial	expert, 1. trial
<i>surface visualized</i>	87.5%	90.4%	89.4%
<i>distension fluid used</i>	813 ml	538 ml	366 ml
<i>intervention time</i>	3:52 min	2:24 min	1:56 min
<i>time out of focus</i>	2:26 min	1:27 min	0:24 min
<i>path length</i>	120.1 cm	65.5 cm	50.5 cm
<i>number of wall collisions</i>	11	4	1
<i>time colliding</i>	14.9 s	5.9 s	1.8 s
<i>time view obscured</i>	1:18 min	0:20 min	0:37 min

Tuchschmid et al. 2009

# Example of evaluation

<b>Diagnostic Intervention Report</b>		
Date: Mon Oct 23 10:58:23 2006 , Scene: MyomaPolyp		
<i>Navigation Skills</i>	<i>achieved</i>	<i>goal</i>
intervention time	2:13	< 2:00
visualized surface	80.3 %	> 85 %
left tube visualized	0:02.5	> 0:01
right tube visualized	0:00	> 0:01
isthmus anterior wall	0:00	> 0:01
time viewing horizon unstable	0:05	< 0:15
time out of focus	0:00	< 0:15
path length	56.6 cm	< 70 cm
number of collisions	6	0
<i>Fluid Handling Skills</i>	<i>achieved</i>	<i>goal</i>
distension media	353 ml	< 500 ml
fluid loss	37 ml	< 100 ml
time view obscured	0:36	< 0:20
time hydrometra collapsed	0:16	< 0:10
number of spill cycles	7	

**Uterus Surface Visualization**

overview	right tubal opening	left tubal opening	anterior wall

**Diagnosis Path**

overview	right side	left side

# CONCLUSIONS

*“A system that can provide unbiased and objective measurement of surgical precision (rather than just speed) could help training, complement knowledge based examinations, and provide a benchmark for certification”*

*Darzi et al.*

Thank  
you