Baseline & Multiple Choice Questionnaire VRT 2025

Dear Participant,

Welcome to a unique and exciting journey at the **DAVOS GI Course 2025** — one that places **you** at the heart of a **historic moment in surgical education**.

Before we begin, you'll be invited to complete a short **personal and professional questionnaire** to help us tailor the learning experience to your background, skills, and goals. Following that, you will take part in a **multiple-choice knowledge assessment** focused on laparoscopic cholecystectomy. At **completion of the course** you will be provided with a **second multiple-choice knowledge assessment.**

This is **not an exam**, and your answers will **not affect your course participation or certificate**. Ruther, this is your chance to help shape the future.

We kindly ask that you complete the MCQ **without any assistance from AI or online tools**.

Why? Because **you are among the first in Europe** to validate an **extended adaptive learning platform** — a new era in education that could transform how surgery is taught and learned around the world.

By giving your genuine input, you are opening the door to **better careers for future generations** and contributing to **safer surgery worldwide**. But if the results are artificially inflated, the impact of this innovation will be lost — and we risk missing the opportunity to move surgical education into the 21st century.

We're honored to have you with us on this journey.

Let's make history — together!

Your DAVOS GI Course 2025 Faculty

* Gibt eine erforderliche Frage an

1. Name and Surname *

2. Year of birth *

3. Gender *

Markieren Sie nur ein Oval.

- Female
- Male
- Prefer not to say

4. Handedness *

Markieren Sie nur ein Oval.

- Right-handed
- Left-handed
- Ambidexter

5. Year of medical degree (MD): *

6. Experience in video games *

Markieren Sie nur ein Oval.

- Yes
- No

7. For which specialty are you training for / or have you trained for? *

Markieren Sie nur ein Oval.

- ◯ Surgery
- ◯ Urology
- ◯ Gynecology
- ◯ I dont know yet
- ◯ Sonstiges: _____

Minimal Invasive Surgery Experience

In this part we ask you to tell us about your career pathway and to experience in minimal invasive surgery

8. In which year of residency / training are you? *

Markieren Sie nur ein Oval.

- ◯ 1st
- ◯ 2nd
- ◯ 3rd
- ◯ 4th
- ◯ 5th
- ◯ 6th
- ◯ >6th

9. Are you a board certified surgeon?

Markieren Sie nur ein Oval.

- ◯ Board certified surgeon
- ◯ Board certified surgeon & in specialised training (fellowship)
- ◯ Board certified surgeon with completed specialised (sub-specialised) training
- ◯ I am not

10. In which country do you currently work? *

_____

11. How do you currently grade your general overall minimal invasive skills? * **(1= none, 10= master)**

Markieren Sie nur ein Oval.

1	2	3	4	5	6	7	8	9	10
◯	◯	◯	◯	◯	◯	◯	◯	◯	◯

12. What are your three **(3)** most important reasons why you currently train on a simulator? *

Wählen Sie alle zutreffenden Antworten aus.

- [ ] Improve basic laparoscopic skills
- [ ] Mastering advanced laparoscopic skills
- [ ] Being independent in operating
- [ ] Skill maintenance
- [ ] Manage possible complications
- [ ] Learning in a protected environment (train without patients)
- [ ] Mandatory for my board certification
- [ ] My training program mandates this training
- [ ] Improving patient care
- [ ] Career advancement
- [ ] Sonstiges: _____

13. How many **minimally invasive appendectomies** have you performed as principal surgeon (EPA Level 2-5)

Markieren Sie nur ein Oval.

- ◯ 0
- ◯ 1-5
- ◯ 6-20
- ◯ 21-100
- ◯ >100

14. How proficient are you in **minimally invasive appendectomies?** *

Direct supervision: may act under proactive, ongoing, full supervision (supervisor in room)
Indirect supervision: may act under reactive supervision (supervisor immediately available, relevant steps controlled)

Markieren Sie nur ein Oval.

- Not able to perform (EPA level 1)
- Able to perform under direct supervision (EPA level 2)
- Able to perform under indirect supervision (EPA level 3)
- Able to perform unsupervised (EPA level 4)
- Able to supervise (EPA level 5)

15. How many **minimally invasive cholecystectomies** have you performed as principal surgeon (EPA Level 2-5)

Markieren Sie nur ein Oval.

- 0
- 1-5
- 6-20
- 21-100
- >100

16. How proficient are you in **minimally invasive cholecystectomy**? *

Direct supervision: may act under proactive, ongoing, full supervision (supervisor in room)
Indirect supervision: may act under reactive supervision (supervisor immediately available, relevant steps controlled)

Markieren Sie nur ein Oval.

- ◯ Not able to perform (EPA level 1)
- ◯ Able to perform under direct supervision (EPA level 2)
- ◯ Able to perform under indirect supervision (EPA level 3)
- ◯ Able to perform unsupervised (EPA level 4)
- ◯ Able to supervise (EPA level 5)

17. How many **minimally invasive colorectal procedures** have you performed as principal surgeon (EPA Level 2-5)

Markieren Sie nur ein Oval.

- ◯ 0
- ◯ 1-5
- ◯ 6-20
- ◯ 21-100
- ◯ >100

18. How proficient are you in **minimally invasive colorectal procedures**? *

Direct supervision: may act under proactive, ongoing, full supervision (supervisor in room)
Indirect supervision: may act under reactive supervision (supervisor immediately available, relevant steps controlled)

Markieren Sie nur ein Oval.

- ◯ Not able to perform (EPA level 1)
- ◯ Able to perform under direct supervision (EPA level 2)
- ◯ Able to perform under indirect supervision (EPA level 3)
- ◯ Able to perform unsupervised (EPA level 4)
- ◯ Able to supervise (EPA level 5)

19. How many **minimally invasive bariatric procedures** have you performed as principal surgeon (EPA Level 2-5)

Markieren Sie nur ein Oval.

- ◯ 0
- ◯ 1-5
- ◯ 6-20
- ◯ 21-100
- ◯ >100

20. How proficient are you in **minimally invasive bariatric procedures**? *

Direct supervision: may act under proactive, ongoing, full supervision (supervisor in room)
Indirect supervision: may act under reactive supervision (supervisor immediately available, relevant steps controlled)

Markieren Sie nur ein Oval.

- Not able to perform (EPA level 1)
- Able to perform under direct supervision (EPA level 2)
- Able to perform under indirect supervision (EPA level 3)
- Able to perform unsupervised (EPA level 4)
- Able to supervise (EPA level 5)

21. How many **minimally invasive hernia procedures** have you performed as principal surgeon (EPA Level 2-5)

Markieren Sie nur ein Oval.

- 0
- 1-5
- 6-20
- 21-100
- >100

22. How proficient are you in **minimally invasive hernia procedures**? *

Direct supervision: may act under proactive, ongoing, full supervision (supervisor in room)
Indirect supervision: may act under reactive supervision (supervisor immediately available, relevant steps controlled)

Markieren Sie nur ein Oval.

- ◯ Not able to perform (EPA level 1)
- ◯ Able to perform under direct supervision (EPA level 2)
- ◯ Able to perform under indirect supervision (EPA level 3)
- ◯ Able to perform unsupervised (EPA level 4)
- ◯ Able to supervise (EPA level 5)

Self-assessment

In this part we ask about your personal self-assessment which can be independent from your actual experience. (Reminder: This is **your personal feeling** regarding your skills)

23. How do you rate your **overall laparoscopic surgical skills?** *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5

24. How **time and motion sufficient** are you in l**aparoscopic surgery**? *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- 1
- 2
- 3
- 4
- 5

25. How do you rate your **instrument handling/bimanual dexterity**? *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- 1
- 2
- 3
- 4
- 5

26. How do you rate your **tissue handling**? *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- 1
- 2
- 3
- 4
- 5

27. How do you rate your **flow of operation and forward planning/autonomy**? *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- 1
- 2
- 3
- 4
- 5

28. How do you rate your **efficiency**? *

(1= none, 5= master)

Markieren Sie nur ein Oval.

- 1
- 2
- 3
- 4
- 5

Multiple-Choice Questionnaire

This multiple-choice questionnaire is designed to assess your current knowledge of laparoscopic cholecystectomy, including preoperative evaluation, surgical indications, intraoperative decisions, and postoperative care. It is purely for educational purposes and self-reflection. Your performance has **no impact on your course participation** or the **issuance of your participation certification**.

(Every question has only one correct answer)

29. What is the **first-line imaging modality** for diagnosing acute cholecystitis? *

Markieren Sie nur ein Oval.

- CT Scan
- Abdominal ultrasound
- HIDA Scan
- MRI/MRCP

30. According to the **Tokyo Guidelines (TG18)**, which of the following **laboratory findings** is **most commonly elevated in acute cholecystitis**?

Markieren Sie nur ein Oval.

- Serum amylase
- Leukocyte count
- Serum creatinine
- Direct bilirubin

31. In which of the following conditions is **laparoscopic cholecystectomy* absolutely contraindicated**?

**Surgery in general (open and laparoscopic surgery)*

Markieren Sie nur ein Oval.

- Child-Pugh class C cirrhosis
- Uncontrolled coagulopathy
- Acute cholecystitis with symptom duration >72hours
- Age > 80 years

32. What is the **recommended time frame** for performing early laparoscopic cholecystectomy in acute cholecystitis?

Markieren Sie nur ein Oval.

- ◯ Within 24 hours of symptoms onset
- ◯ Within 7-10 days of symptoms onset
- ◯ After 6 weeks of antibiotic therapy
- ◯ Only if symptoms persist >14 days

33. Which of the following is a key feature of the **Critical View of Safety (CVS)** in laparoscopic cholecystectomy?

Markieren Sie nur ein Oval.

- ◯ Dissecting the cystic artery before exposing the cystic duct
- ◯ Ensuring that only two structures enter the gallbladder before division
- ◯ Using electrocautery to separate the gallbladder from the liver before duct identification
- ◯ Ligating the cystic artery before visualizing the cystic duct

34. Which of the following postoperative complications is most likely if a patient has increasing right upper quadrant abdominal pain, fever, and **stained fluid in the drain 48 hours after laparoscopic cholecystectomy**?

Markieren Sie nur ein Oval.

- ◯ Wound infection
- ◯ Small bowel perforation
- ◯ Bile leak
- ◯ Ileum

35. A 55-year-old man presents with **right upper quadrant abdominal pain and fever.** Ultrasound shows gallstones, a thickened gallbladder wall, and pericholecystic fluid. His white blood cells count is 19.000. What is the **severity of acute cholecystitis based on TG 18?**

Markieren Sie nur ein Oval.

- Mild (Grade I)
- Moderate (Grade II)
- Severe (Grade III)
- Not enough information given to decide!

36. A patient with **acute cholecystitis** has **severe sepsis and multiorgan failure**. What is the recommended **immediate management strategy**?

Markieren Sie nur ein Oval.

- Emergency laparoscopic cholecystectomy
- IV antibiotics and observation
- Percutaneous cholecystostomy
- Elective cholecystectomy in 4 weeks

37. A 68-year-old patient with diabetes presents with **right upper quadrant abdominal pain.** Ultrasound **reveals gallstones and gas in the gallbladder wall**. What is the most likely diagnosis?

Markieren Sie nur ein Oval.

- Acute calculous cholecystitis
- Emphysematous cholecystitis
- Acalculous cholecystitis
- Gallbladder perforation

38. A patient with **suspected acute cholecystitis** has an equivocal ultrasound. Which **imaging modalit provides the highest sensitivity and specificity for diagnosing cystic duct obstruction?**

Markieren Sie nur ein Oval.

- MRI/MRCP
- CT Scan
- Endoscopic Ultrasound
- PET Scan

39. During **laparoscopic cholecystectomy**, the surgeon encounters **severe inflammation and difficult visualizing the anatomy**. Which strategy is most appropriate to prevent bile duct injury?

Markieren Sie nur ein Oval.

- Use laparscopic stapler
- Convert to an open procedure
- Clamp and divide any visible structures
- Continue dissection despite poor visualization

40. What is the most appropriate next step in a patient who develops **fever** and localized **right upper quadrant abdominal** tenderness 5 days after laparoscopic cholecystectomy?

Markieren Sie nur ein Oval.

- Immediate laparotomy
- IV antibiotics only
- CT scan to assess for abscess
- ERCP

41. Which of the following findings on **preoperative imaging** would suggest the **need for intraoperative cholangiography** (if feasible) during laparoscopic cholecystectomy?

Markieren Sie nur ein Oval.

- ◯ Thickened gallbladder wall
- ◯ Dilated common bile duct > 8mm
- ◯ Presence of gallstones
- ◯ Pericholecystic fluid

42. In which scenario should **laparoscopic cholecystectomy be delayed** in a patient with acute cholecystitis?

Markieren Sie nur ein Oval.

- ◯ Patient presents 36 hours after symptom onset
- ◯ Patient has mild acute cholecystitis with stable vitals
- ◯ Patient has severe sepsis and is hemodynamically unstable
- ◯ Patient has Leukocytosis of 15,000 G/L

43. A surgeon encounters **significant adhesions obscuring Calot's triangle in a difficult gallbladder case**. What is the most appropriate step?

Markieren Sie nur ein Oval.

- ◯ Forcefully dissect through adhesions
- ◯ Use electrocautery to cut through tissues
- ◯ Perform a fundus-first cholecystectomy
- ◯ Convert to open surgery

44. A **70-year-old** patient with **Child-Pugh class B** cirrhosis requires cholecystectomy. What is the preferred approach?

Markieren Sie nur ein Oval.

- Percutaneous cholecystostomy
- Laparoscopic cholecystectomy by an experienced surgeon
- Open cholecystectomy
- Conservative management with antibiotics only

45. What is the **most common cause of bile duct injury** during laparoscopic cholecystectomy? *

Markieren Sie nur ein Oval.

- Unrecognized variant anatomy
- Use of monopolar electrocautery
- Inadvertent ligation of the right hepatic duct
- Forceful traction on the gallbladder

46. What is the recommended **first-step treatment for a confirmed cystic duct leak postoperatively**

Markieren Sie nur ein Oval.

- Laparotomy with exploration of the liver
- ERCP with biliary stent placement
- IV antibiotics and observation
- Percutaneous drainage only

47. Which **structure** should be carefully identified to **minimize the risk of common bile duct injury**?

Markieren Sie nur ein Oval.

- Right hepatic artery
- Rouvière's sulcus
- Portal vein
- Common hepatic artery

48. What is the **most effective method to prevent retained gallstones** after bile spillage intraoperatively?

Markieren Sie nur ein Oval.

- Copious irrigation and removal of stones
- Leaving stones in the peritoneal cavity
- Performing an intraoperative cholangiogram
- Closing the peritoneum tightly

Dear participant,

Thank you for taking part in our Virtual Reality Intensive cholecystectomy.
The curriculum has the following goals:
1.To gradually build up the skills needed to perform a cholecystectomy on a virtual reality simulator
2.To be able to independently and safely perform a cholecystectomy on a virtual reality simulator.

49. I hereby authorise the collection and anonymous use of my personal data during this course for every scientific legal purpose.

Wählen Sie alle zutreffenden Antworten aus.

- [ ] I do