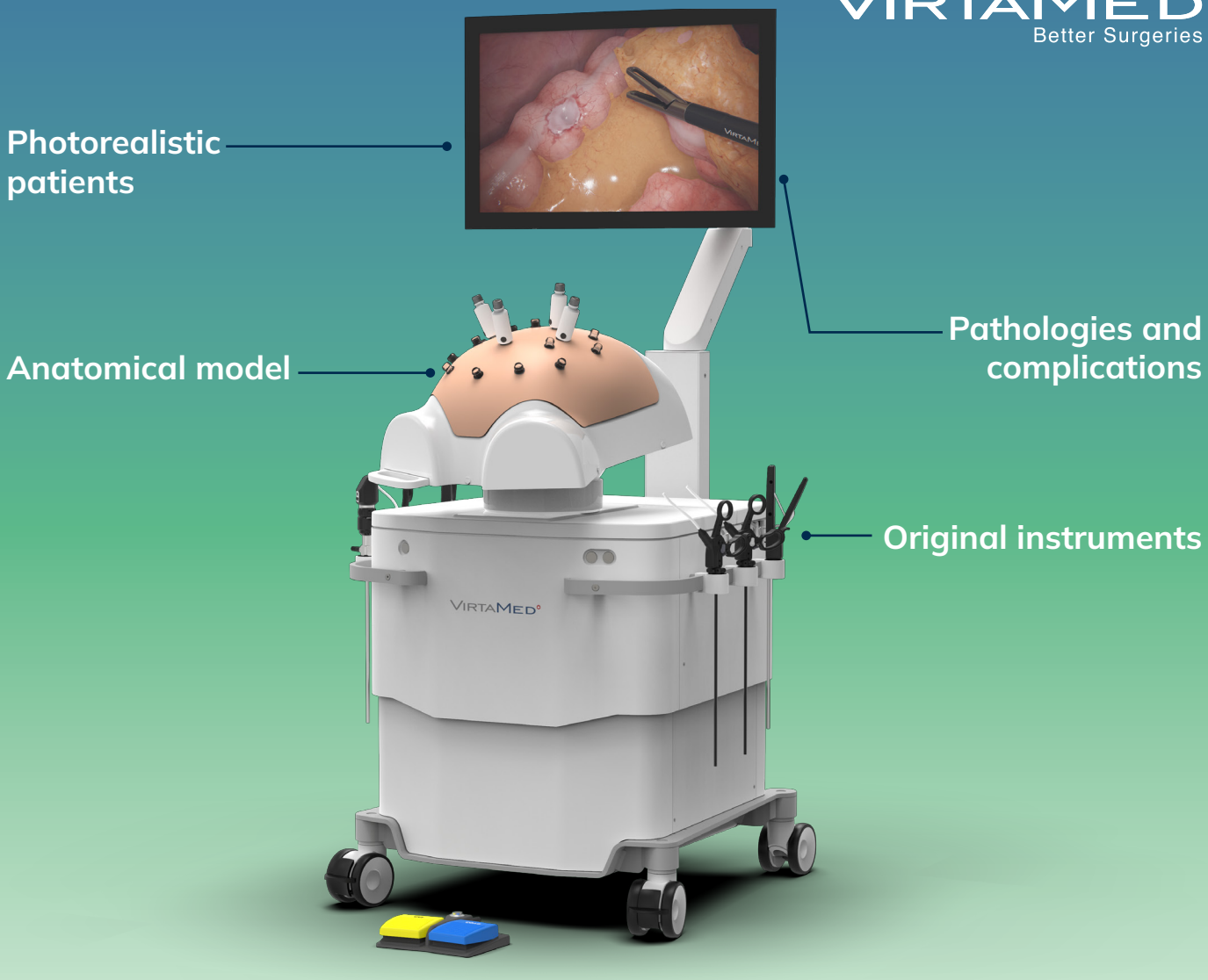
VIRTAMED
Better Surgeries



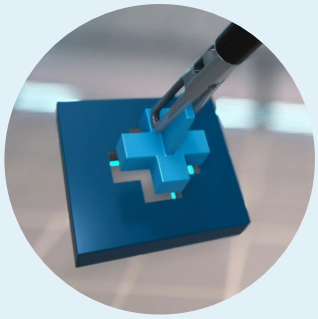
LaparoS™

Comprehensive laparoscopy training simulator with unmatched realism: real graphics, real instruments, real feel.

LaparoS™ enables the integration of modules from other specialties (UroS™, GynoS™ and ArthroS™) on the same platform.

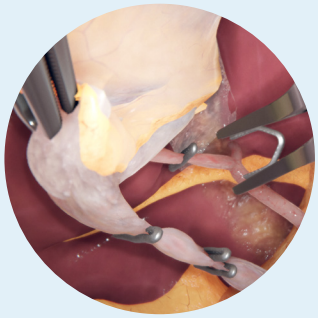
virtamed.com

Modules



Essential skills

Training cases inspired by FLS to prepare for bimanual coordination and pattern cutting. Using a simulated 0° or 30° optic, trainees can also become proficient in camera navigation, eye-hand coordination, clip placement and development of ambidextrous psychomotor skills.



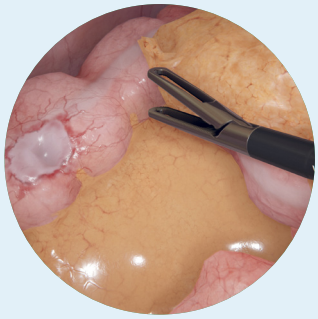
General surgery

Condensed training cases focus on specific skills and adverse events derived from cholecystectomy, appendectomy and incisional hernia, allowing residents to focus on repeating and mastering each skill individually. Rare situs-inversus totalis patient cases train ambidextrous and non-dominant hand skills.



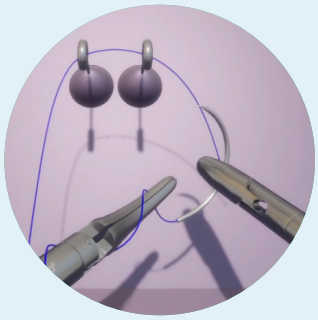
Gynecological laparoscopy

Condensed training cases include diagnostic laparoscopy, anatomy identification, clipping and cutting, and more training cases derived from highly realistic scenarios including hysterectomy, tubal ligation, ovarian cystectomy, salpingectomy, adnexectomy, endometriosis and salpingotomy for management of ectopic pregnancies.



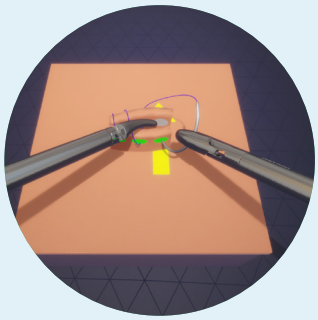
Colorectal surgery

Condensed diagnostic and therapeutic training cases with highly realistic scenarios derived from right colectomy. This module helps trainees practice key steps in right colectomy with a broad selection of diagnostic cases followed by a questionnaire. Trainees learn how to safely expose the ileocolic pedicle with blunt dissection, electrocautery, and a vessel sealing device.



Suturing

Cumulative and step-by-step training cases focusing on specific skills for safe needle manipulation and intracorporeal knot tying (half knot, square knot, and surgeon's knot). Using two needle holders, or a grasper and a needle holder, trainees can hone their skills with precision and confidence, ultimately enhancing their proficiency and readiness for certification, such as the GESEA MIGS.



Advanced suturing

Developed in collaboration with leading surgeons and technology experts, this innovative module focuses on advanced suturing techniques. It covers procedures like interrupted suturing for ventral hernia repair with braided sutures and running suturing for vaginal cuff closure with barbed sutures. With multiple levels of complexity, it challenges both novice and experienced surgeons. Advanced metrics provide feedback on speed, force, accuracy, and technique, fostering continuous improvement. Training in true-to-life conditions, these skills are directly transferrable to real-life procedures, enhancing proficiency and patient outcomes. Tailored for general and gynecological surgeons, it prepares trainees for certifications like FLS and GESEA MIGS.

Positioning

With the VirtaMed LaparoS™ the preparation prior to surgery is taken into account: correct patient positioning is crucial for surgical efficacy and patient safety,[1] a well-considered choice of trocar positions ensures safe surgical access and efficient instrument triangulation and team training is crucial to improve team collaboration and shorten operative times.



Ambidexterity

Residents can repeatedly train their non-dominant hand to enhance the performance of both hands, achieving proficiency with formative guidance and summative feedback. Cases involving situs-inversus totalis patients challenge residents to reorient their visual-motor skills, promoting bilateral transfer. This experience helps residents better understand working with the non-dominant hand in an inverted environment. The LaparoS™ Essential Skills module offers an excellent way to develop ambidexterity in an abstract setting.



"What fascinates me the most about the new simulator is really taking not just the operation in consideration but the entire preparation: positioning trocars and being able to simulate as close as possible to reality."

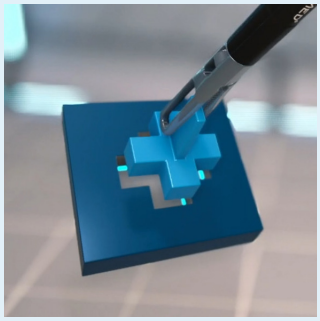
Prof. Dieter Hahnloser
CHUV Lausanne, Switzerland

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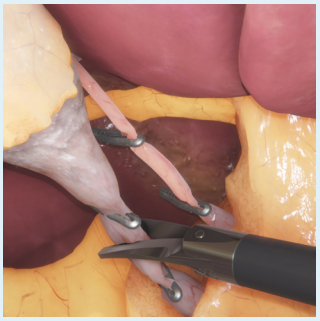
[1] Agostini J, Goasguen N, Mosnier H. *Patient positioning in laparoscopic surgery: Tricks and tips.*, Journal of Visceral Surgery (2010) vol. 147, no. 4, p. 287-291.

A modular learning approach

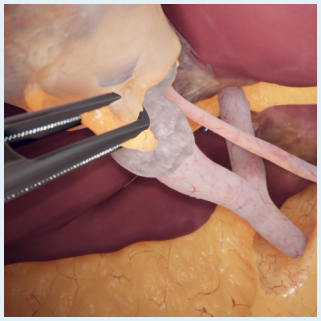
With LaparoS™ the trainee starts with essential psychomotor skills training in an abstract environment and then transfers these skills into short anatomical learning sequences, once this is mastered, anatomical variations and complication handling can be trained. Modular training approaches like the one implemented in LaparoS™ have been validated to be successful in shortening the learning curve and mitigating surgical risk.[2]



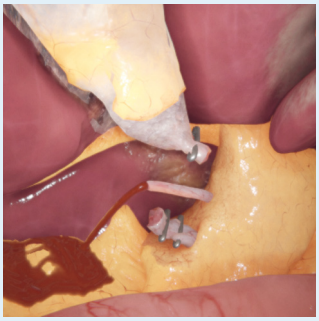
Essential skills



Deconstructed skills



Clinical variations



Adverse events

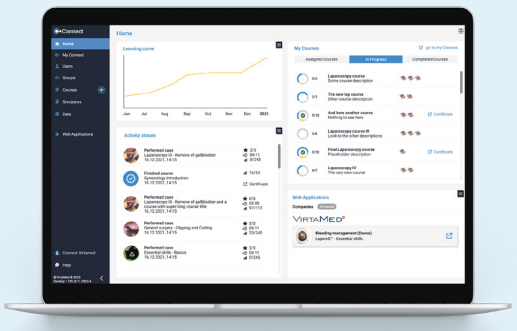


"You are able to mimic exactly what we do on a real patient [...] I like the idea that we can actually intercede and add complications, we can add bleeding, we can add a leakage from the gallbladder for example [...] so all those things give you the feel that you are in the OR."

Dr. Ivan Puente
Broward Health, Fort Lauderdale, USA

VirtaMed Connect

Connect is VirtaMed's cloud-based solution that lets you access your simulator data anytime from anywhere. Use Connect to remotely create courses, track student progress, and manage your simulator usage – all from the convenience of your desk or tablet. With Connect, trainees are motivated through online leader boards and can compare their own results over time.



[2] Stolzenburg et al.: *Modular surgical training for endoscopic extraperitoneal radical prostatectomy*. BJU Int. 2005 Nov;96(7): p. 1022-7.

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