# Intracorporeal Laparoscopic Suture Training Program in Simulation

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## Abstract:

Intracorporeal laparoscopic suturing (ILS) skill remains to be the key skills in performing laparoscopic operations (LO). This is a difficult skill to aquire because it requires developing a complex of psychomotor, visuospatial skills and stereo-acuity at the same time. Simulative training programs (STP) aim to develop surgeons' ability to perform ILS in practice. However, ILS transferring into practice after TP only scales from 43,8% to 72,2%. The reasons are lack of confidence in skills, stress factors at operation Training methodics are important, but there are few descriptions of them. There is a need to increase ILS STP effectiveness.

ILS STP has been developed (18 hours in 3 days) which includes video- and alive demonstration, specific exercises the non-dominant hand and the needle positioning, multiple repetition of small movement elements, consequent use of open and close box trainer, recording video of trainees' implementation for self-assessment and corrections, breaks for rest every 15-20 minutes. The aim was to develop skills for standart surgical knot (SSK), uninterrupted suture with Aberdeen knot and slip knot (SIK) with original technic.

ILS STP effectiveness survey was performed for specialists (n=52) who attended TP in 2018-2022 without previous ILS skills and training. Structured interview was performed for 54 attendees of 2018-2022. Transferring into practice rate for suturing with SSK – 88,9%, for SIK – 72,9%. 84,6% participants pointed out expanded range of laparoscopic operation, 73,0% - contracted longitude of LO. No complication was pointed out. ILS STP demonstrated improved results and may be recommended for simulation trainings and standartization.