

“INCENTIVISED LAPAROSCOPY PRACTICE” (ILPs) VERSION 2.4

By the Improving Surgical Training (IST) pilot working group, advised by the Scottish Surgical Simulation Collaborative.

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Situation

The Scottish IST (Improving Surgical Training) pilot project has been funded by Scottish Government to implement a simulation strategy. One of the components is a redesigned simulation-based “Deliberate Practice” (DP) programme for CT1 trainees in laparoscopic surgical skills, informed by the successes and failures of previous attempts, and embedded in the wider changes that distinguish the IST pilot. We are now entering the 4th year of the pilot and are proposing a further amended version of the programme.

Background

Learners of complex motor skills begin with a highly cognitive phase, and with DP move through an associative to an automated phase. In laparoscopic surgery, junior trainees may have limited opportunities in the operating theatre, and may struggle to move beyond the cognitive phase, thinking hard about handling the instruments and tissues. Instead with the benefit of prior DP in simulation, their attention could be free to progress in the technical and the higher cognitive skills of the operation.

Our group has trialled previous versions of a take-home laparoscopy practice programme. In our Incentivised Laparoscopy Practice Study (ILPS) in 2014, amongst 27 Scottish Core Surgical trainees given take-home “eoSim” simulators (with an induction session at their Boot Camp, online modules to follow, target metric scores to achieve and videos to upload). A minority completed all the modules. Noting similar experiences in Ireland, Wessex and Severn, our second study in 2016 – Trainee Engagement with Take-home Simulators (TEnts) – was a qualitative study in all 4 regions, using focus groups of trainees and trainers to examine the barriers and facilitators to engagement. Trainees perceived the system drives them to prioritise other activities that would “tick the boxes” for career progression, over DP. They valued supervisor feedback more than metric feedback from the software. They wanted the opportunity for group sessions to compare notes with their peers and to gain trainer feedback. Trainers were also doubtful of the value of metric feedback.

In 2018/19, 2019/20 and 2020/21 we implemented revised programmes which tried to address some of these issues. The latter also adapted to COVID pandemic conditions. We now propose a further refined version for the coming year which will run as follows:-

Plan for 2021/22

1. All CT1 trainees on the Scottish IST pilot will be included, free of charge to the trainee.
2. Prior to their Boot Camp they will be enabled to download the software to tablet or laptop and log in.
3. At their Boot Camp, as well as some discussion of the important role of DP, faculty including an EO Surgical representative will issue each trainee with an eoSim, get them set up and

- trouble-shoot any technical problems. There will be opportunity to practise one or two of the Core curriculum tasks, with feedback on ergonomics (eg posture, instrument handling).
4. Between August and April, trainees will practise all 6 tasks in the Core curriculum. On achieving the target time spent for each task (ie an A, B or C in the “time spent” score) they should upload one video for the faculty panel to score using an OSATS framework that can be seen on the EO Surgical app or website. Trainees may choose any 4 out of the 6 possible tasks to upload. 2 videos should be uploaded by end of February and the remaining 2 by end of March.
 5. It is anticipated that most practising will be done alone, but trainees should take the opportunity to obtain occasional feedback by
 - a. taking their eoSim to one of their regular sessions with their Educational Supervisor and showing them a task, or doing so with a clinical supervisor while waiting for a live case.
 - b. attending the laparoscopy session during their Boot Camp in Inverness
 - c. attending (or even forming) a local hospital Skills Club if possible
 6. In April/May we will organise return of kit at one or more of the monthly teaching days, and may require an assessment on a task (to be announced).
 7. Successful completion of the programme with an average OSATS score of 11 or more across all the videos +/- final assessment (see app), will result in the award of a basic certificate of completion for uploading to ISCP. Since this is a Scotland only pilot, no-one will be given a non-standard ARCP outcome on the basis of failing this alone. However it may be taken into account alongside other evidence of engagement and progression.
 8. Those who have completed the basic “core” curriculum in good time, may optionally move on to Advanced or Elite levels, and compete for Gold, Silver and Bronze awards amongst the year group. Invitations to this competition will be issued in the New Year.

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