Background and Aims Chronic pain is an important complication of breast surgery, affecting 20 to 30% of patients. We present a case of a 45-year-old woman admitted for prophylactic bilateral simple mastectomy with implant reconstruction. Due to an ovarian carcinoma BRCA1-mutation related, she had previously undergone hysterec­tomy with bilateral adnexectomy, where obstruction secondary to opioids was a major side effect. The patient specifically asked for an opioid-sparing technique for this reason. We aimed to demonstrate that a pre-emptively erector spinae plane block (ESPB) can be part of a multimodal analgesic opioid-sparing technique.

Methods A single shot, ultrasound-guided, bilateral ESPB was performed at T5 level, using 0.375% ropivacaine with sodium bicarbonate 8.4%, for a total of 40 mL. A total intravenous anaesthesia (propofol and remifentanil) was then induced, and analgesia was complemented with ketorolac (30mg), ketamine (30mg), paracetamol (1000mg) and metamizole (2000mg).

Results The surgery was uneventful and effective analgesia was achieved with this strategy (0 pain at rest and 3 with movement out of 10 points in the visual analogic scale). There was no need for opioids in the postoperative period and pain at rest was only reported more than 24h after the block. The patient didn’t show any gastrointestinal symptoms.

Conclusions Despite not being routine in our centre, this case presents ESPB as a major contributor to effective multimodal opioid-sparing analgesia in breast surgery. The avoidance of the opioids gastrointestinal side effects in this procedure greatly improved the patients’ satisfaction.

The patient consent was obtained for this case presentation.

Abstract B49 Figure 1

Background and Aims The PROcedure-SPECific Pain ManagementT (PROSPECT) and Drinking eating, mobilising (DREAM) fulfillment for Abdominoplasty by use of QL Blocks. The study aimed to observe the efficacy of abdominal blocks against the standard opioid based pain management strategy post Abdominoplasty. Our primary outcome assessed the total morphine use and Secondary outcomes include timing of morphine request, the incidence of nausea and vomiting/side effects. Somatic pain is transmitted by ventral rami of spinal nerves, usually T10-L1 and traverses between QL and psoas muscles before entering transversalis fascia. The visceral pain return via inferior hypogastric plexus to enter spinal cord via T10-L1 spinal nerves.

Methods We retrospectively studied morphine requirements in patient records comparing 20 patients having Abdominoplasty with QL Block under USG vs no QL Block group. The transducer was placed in the transverse plane on the flank of the patient cranially to the iliac crest, at the level of the umbilicus perpendicular to the skin. The muscle layers of the abdominal wall were identified and QL was identified medial to the aponeurosis of Transversus abdominis. 0.4 mL/kg 0.25% Levobupivacaine 30 mL under USG guidance with 21G Ultra-plex 100 mm nerve block needle bilaterally.

Background and Aims Ultrasound-guided regional anaesthesia requires needling expertise to minimise the risk of nerve damage – the needle tip should be neither too far from the nerve nor within the nerve, but in the “near-nerve” zone. Whilst block phantoms exist to allow trainees to learn this skill without putting patients at risk, generally they do not provide feedback as to needle tip position relative to the nerve – the trainee may think they are visualising the tip but actually it may be somewhere else.

Methods ADAMgel (Aqueous Dietary fibre Antifreeze Mix gel, a tissue-simulating ultrasound medium [1]) was used to form a tubular coating (representing the near-nerve zone) around a copper rod (the nerve), then wrapped in an insulating layer. This was embedded in more ADAMgel, along with a fluid-filled balloon to simulate a blood vessel. A latex sheet formed the skin. Electrodes connected to the ADAMgel layers, the copper nerve, and the needle tip were fed to an Arduino programmable microcontroller, which was connected to a liquid-crystal display (LCD) (Figure 1). C++ code uploaded to the Arduino allowed it to detect change in resistance as the needle tip advanced through the layers.
Results When a needle with conducting tip was advanced through the ADAMgel towards the nerve, the LCD indicated whether the distance from the nerve was >10mm, ≤10mm, or touching the nerve (Figure 2).

Conclusions A prototype block phantom with needle-position feedback was created. With further refinement, for example reducing the near-nerve zone to 3mm, this offers the potential to improve needling technique training.

Abstract B51 Figure 1

Background and Aims Recent years have seen an increase in remotely delivered teaching. Live ultrasound guided regional anaesthesia (UGRA) teaching is challenging due to the need for simultaneous demonstration of surface landmarks and annotation of dynamic ultrasound images.

We aimed to determine a cost-effective method to deliver such teaching and evaluate its effectiveness.

Methods Multiple technology solutions were considered to determine the optimum audio-visual set-up to deliver a live teaching session to a hybrid audience comprising of 15 online and 5 face-to-face (F2F) participants, with varied ultrasound experience. A volunteer was scanned by expert demonstrators, and the live images were annotated using touch-screen technology and presented remotely (Figure 1). Subject matter included ‘Plan A’ [1] and airway blocks, to cover a range of anatomical locations.

All participants completed a questionnaire to evaluate aspects of their learning experience on a scale of 1 (poor) to 5 (excellent).

Results Both groups reported the overall experience was excellent (mean online vs F2F scores were 4.6 vs 5.0 respectively), and that they were learning effectively (4.75 in both groups).

The clarity of ultrasound images (4.60 vs 4.75), on-screen annotation (4.40 vs 4.75), and appreciation of surface...