Conclusions Our survey suggested high quality of RA training was provided in a supportive environment, rising to the challenge of Covid-19 Pandemic [2]. Some respondents significantly enhanced their non-technical skills leading to successful career progression. The new 2021 RCoA Training Curriculum emphasizes a wide range of ultrasound guided RA training during stage 2 [3]. It is too early to determine the effect of new curriculum on RA training locally and nationally, which needs further evaluation.

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Application for ESRA Abstract Prizes: I don’t wish to apply for the ESRA Prizes

Background and Aims Machine learning enables complex patient data to be distilled into predictive diagnostic tools. This review identified studies that applied machine learning to predict acute, subacute, or chronic pain or opioid use after any surgical procedure.

Methods We searched PubMed using the following search strategy and terms: ‘machine learning’ OR ‘artificial intelligence’ AND ‘pain’ OR ‘opioid’ AND ‘surgery’ OR ‘postoperative’ AND ‘predict.’ The inclusion criteria were literature written in English that used machine learning and/or artificial intelligence to predict postoperative and/or opioid use after surgery. The exclusion criteria were reviews; protocol papers; commentaries; not a pain or opioid-related outcome; not a postoperative outcome; diagnostic or measurement tool.

Results Thirty-nine studies were included (figure 1). Nineteen studies (48.7%) utilized machine learning to predict the outcome of chronic postoperative pain or function after any surgical procedure, followed by 12 studies (30.8%) utilizing machine learning to predict chronic postoperative opioid use. The most common algorithms were GBDT (n = 28), random forest algorithms (n = 23) and regularization algorithms (n = 22). 27 studies (69.2%) used preoperative pain as a predictor in the initial model. 22 studies (69.2%) used preoperative pain as a predictor in the final model. 25 studies (64.1%) used preoperative opioid use as a predictor in the initial model. 19 studies (54.3%) used preoperative opioid use as a predictor in the final model.

Conclusions Machine learning can contribute to personalized perioperative pain management approaches. Patient-reported variables are important, salient predictors of acute, subacute, or chronic pain or opioid use after any surgical procedure.

Abstract #35044 A QUALITATIVE ANALYSIS OF INTRAOPERATIVE ACUPUNCTURE FOR NOSOCOMEPHOBIA: THE UNSEEN PATIENT

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Background and Aims Nosocomophobia, a type of PTSD, is an extreme fear of hospitals. Hospital phobia is usually caused by a traumatic hospital experience. If untreated, nosocomophobia can hinder medical care. There is little research on how nosocomophobia affects elective surgery and how acupuncture can help patients cope with it. Using the transactional model of stress and coping, this qualitative case study examines acupuncture’s role in nosocomophobia patients’ elective surgery appraisal process.

Methods Individual interviews were conducted with participants to inquire about their nosocomophobia and prior hospital experiences. Six reviewers coded the interview transcripts line-by-line. Reviewers labeled meaningful words, phrases, and sentences and produced over 600 codes. All reviewers discuss and identify themes by grouping similar codes and resolving discrepancies. A thematic analysis was used to develop final themes for this study. The coding process was conducted in Dedoose.

Results Sophie had avascular necrosis in both hips and suffered PTSD from a previous traumatic event. Intraoperative acupuncture calmed her hospital anxiety, allowing her to have both hips replaced. Olivia has PTSD and a hospital phobia since age 12. Acupuncture reduced her anxiety about a total knee arthroscopy. Thematic analysis showed how nosocomophobia impacted patients’ views of surgery and distinguished between their unique fear rationale. The transactional model of stress and coping illustrated patients’ appraisal process from surgery (stressor) to coping (acupuncture) to reappraisal (mental state).
Compared to other hospital visits, surgery can be stressful. Acupuncture is a safe, non-invasive way for nosocomophobia patients to manage preoperative anxiety and undergo elective surgery.

**Methods**

POMAHR has the following principles 1-preoperative patient medical optimization according to clinical protocols 2-early pain control with regional anesthesia 3-nutritional protocols with liquid intake up to 2h before surgery and protein reinforcement 4-surgical intervention within 36-48h 5-perform chemical neurolysis to control pain in patients who lack surgical indication 6-early rehabilitation since day1

**Results**

Patients with PFF are mainly elderly, often with several comorbidities, needing a multidisciplinary approach in addition to surgery within 48 hours. We hope to reduce perioperative complications, reducing time of hospitalisation and mortality thus enhancing recovery and previous functional status.

**Conclusions**

The implementation of this protocol in our center, promotes a multidisciplinary approach, a prompt intervention and a continuous clinical monitoring of patients with PFF, from admission to hospital discharge. These factors are key to successful patients' treatment.