SP10 ADJUVANTS IN THE AMBULATORY SETTING. WHAT IS THE EVIDENCE?

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Adjuvants are medications that work synergistically with local anesthetics to help enhance the duration and quality of analgesia in regional techniques. Regional anesthesia has become more prevalent as evidence continues to show efficacy, enhancement of patient care, increased patient satisfaction, and improved patient safety. Practitioners in the perioperative setting need to not only be familiar with regional techniques but also the medications used for them.

SP10.1 LOCAL ANESTHETICS AND CANCER RECURRENCE

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There is a growing interest regarding the impact of the perioperative period and the application of anesthetic drugs on the recurrence of cancer metastases. Among them the use of amide-type local anesthetics seems promising since in vitro studies have shown their potential to inhibit the ICAM-1 expression and the Src activity, which are clearly implicated in the process of inflammation and cancer metastases.

SP11 WRONG SIDED BLOCKS& ORGANIZATION OF THE BLOCK ROOM

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The incidence of wrong-sided blocks varies in the literature between 0,5–5 per 10.000 blocks. Blocking the wrong side seems avoidable and is often considered as the result of inattention or carelessness. However, several factors seem to contribute to this event, as for all medical errors (described as the swiss cheese model).

Although the consequences of the block itself may not be life threatening, it might lead to wrong sided surgery as a possible harm.

Several methods are available for preventing wrong-sided nerve blocks, for example the stop before you block, the surgical preoperative checklist and preoperative obliged marking of the operative side by the surgeon. Implementing these strategies can greatly lower the incidence of wrong sided nerve blocks.

The block room as a designated space saves OR time and provides a more relaxing environment for both the anesthetist and the patient. It is not clear whether the time saving benefits outweigh the cost of the block room itself. This depends on the institution and the kind of surgery for which it is used.

There are several strategies available for both preventing wrong-sided blocks and optimalisation of the block room. However optimal implementation calls upon our non-technical skills. 'Change Management', especially in a medical environment is challenging. Teamwork, Education, Communication, Situational awareness, and knowledge of group dynamics are all important skills that contribute to preventing errors, optimal patient flow and quality of care.

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SP12 PROFICIENCY BASED TRAINING IN NEURAXIAL ANAESTHESIA. WHY AND HOW?

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What do Lionel Messi, Billie Eilish and Banksy have in common? Other than being household names, they are masters of craft. They possess the rare ability to perform complex tasks with apparent consummate ease. Like many high performing people, they have developed domain specific mastery by developing their mind, their body and their craft. Excellence is easily observed, but is less easily described. To objectively describe performance characteristics that are foundational to high performance is difficult. What are the observable characteristics of a virtuoso violinist during a performance?

To contextualise this discussion to neuraxial anaesthesia and analgesia we might ask: what does a competent or proficient anaesthesiologist do that makes them an expert? It is probably fair to state that many of us have identified a preferred colleague to provide neuraxial anaesthesia should that need arise. It is probably equally as fair to state the converse: there are certainly colleagues whose skills do not meet a notional standard. Objective descriptions of the characteristics of each of these hypothetical colleagues might provide insight into high and low performance in neuraxial anaesthesia. In the following paragraphs and accompanying lecture the foundational concepts that underpin the application of proficiency based progression training in neuraxial analgesia will be discussed.

High level procedural skills are directly associated with better patient outcome.[1] Experts perform complex tasks more completely and make fewer errors than non-experts.[2] Errors in procedural healthcare cause harm.[1,3] Errors and associate harm are entirely avoidable by improving technical performance. To understand why metrics based training is an important concept, the learning environment must be better understood. Trainees have fewer learning opportunities than their historical peers of 10 or 20 years ago. Work time limitations, a move toward shift work patterns and condensed specialist training programmes mean that trainees have less exposure to clinical caseload and senior clinical tuition in the workplace than prior generations. This environment inadvertently places inexperienced non-expert doctors in roles that they are poorly prepared to fulfil.

Experts consume less cognitive load when performing complex tasks than non-experts. This concept is readily seen by an expert's ability to hold a conversation while simultaneously performing complex tasks. Non-experts conversely are often fixated on the task at hand and miss environmental queues.[4] The attentional capacity paradigm is a conceptual framework that describes human attentional capacity as finite.[5] Experts

automate tasks and do not rely on cognitive processing other than for key sentinel moments during a procedure or process. Non-experts are at or above a notional attentional capacity ceiling which limits their ability to perform complex tasks in dynamic environments. The analogy of a laptop running too many applications and exceeding random access memory (RAM) comes to mind.

Epidural analgesia for the woman in labour is an example of a set of complex tasks in a dynamic environment. The process can be defined in clear and unambiguously terms as a set of individual tasks by observing expert performance. By observing non-expert performance, commonly performed errors can be defined. These definitions can be used to design a list of objective and observable behaviours that inform curriculum design. Those defined components that differentiate expert from non-expert performance can be used to assess performance and provide feedback. The integration of validated metrics into curriculum design has been associated with an improvement in skill based performance in a variety of both simulation based learning and clinical environments.[6,7]

In relation to epidural analgesia, Srinivasan *et al*,[8] described the use of a metrics based curriculum to train and assess both the technical performance and clinical efficacy of epidural analgesia. Half of the participants were trained to perform epidural analgesia on the labour ward without alteration to standard training. Half of the participants received metrics based training. Those who received metrics based training were assessed as to their proficiency in a simulation environment prior to being permitted to perform epidural analgesia on the labour ward. Only those who met the proficiency standard were permitted to proceed to place epidurals for labour analgesia. The authors identified a significant improvement in analgesic outcome in patients who were treated by anaesthesiologists in training who received metrics based training rather than those who received traditional in-service clinical training. Metrics based training improved first pass success rate and the quality of analgesia provided while a shortened needling procedure time was observed. The authors suggest that proficiency based progression training enhances the performance of non-experts.

The use of proficiency based training progresses trainees further up a notional learning curve in a simulation learning environment prior to performing complex tasks on patients. Ultimately proficiency based progression training may prove beneficial in limiting harm that occur due to avoidable errors in procedural healthcare.

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SP13 PRO-CON DEBATE: FOR EMERGENCY CS, A LABOUR EPIDURAL SHOULD BE REMOVED, AND A SPINAL ANAESTHETIC USED INSTEAD- PRO

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Introduction Intrapartum caesarean delivery (CD) is a common obstetric intervention. Published cohorts report up to 31,2% of intrapartum CD among parturients admitted to delivery room.[1] It also represents 60 to 70% of total cases of CD in several countries.[2,3] Most frequent indications are a failure to progress or non-reassuring foetal heart rate, which don't require a fast response. However, obstetric emergencies like umbilical cord prolapse, uterine rupture or other maternal and/or foetal distress may require an immediate reaction from the obstetricians, so the anaesthetic technique must be adapted consequently.[3]

When an emergency CD is indicated (category I or II according to Lucas Classification)[4], some authors have described a risk for a poorer outcome if foetal extraction is delayed (OR: 1.8, 95% confidence interval (1.2–6.5)).[5]Decision to Delivery Time (DDT) is a good indicator for this possible delay in the foetal extraction, and it was progressively integrated into the protocols of management of emergency CD. A recent consensus document of the Scientific SubCommittee-4 of the European Society of Anaesthesia and Intensive Care (SSC4-ESAIC) and the European Board of Anaesthesiology of the UEMS (EBA-UEMS) showed that recommended DDT varied between 15 and 30 minutes for a category I CD, depending on the European country.[6] The anaesthetic technique employed to attend these patients is conditioned by the level of emergency of the caesarean delivery, the goal being to provide the best and safest possible anaesthesia in the shortest time. For this purpose, several options can be offered depending on the situation.

Could epidural top up not work for emergency intrapartum CS?

In European maternities, despite a certain disparity between and even within countries, labour epidural analgesia (LEA) is the gold standard technique that provides the best comfort to labouring women.[6] Many recent cohorts of patients describe a LEA rate which has increased drastically in the last 20 years in high income countries, with values usually above 60 to 80%.[7] On top of comfort and analgesia, LEA offers a significant advantage in terms of safety, since it permits to convert the analgesic to an anaesthetic block when an intrapartum CD is indicated, and so it avoids a general anaesthesia in almost 90% of the cases,[8] with an acceptable time difference in terms of DDT.[9] In fact the administration of a top up dose of concentrated local anaesthetic prior to intrapartum CD has been an extended practice for a very long time now,[10] and can be considered the gold standard of care in obstetric anaesthesia practice. Many studies have been published concerning the best top up local anaesthetic solution to obtain a surgical epidural block,[11] and it seems that Lidocaine 2% plus adjuvants (bicarbonate and/or norepinephrine and/or fentanyl)[12] and 2-