**B180** IMPROVING RIB FRACTURE MANAGEMENT IN A MAJOR TRAUMA CENTRE: A SERVICE AND QUALITY IMPROVEMENT PROJECT
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10.1136/rapm-2022-ESRA.255

**Background and Aims** Rib fractures present commonly in major trauma centres (MTCs) and are a significant source of morbidity and mortality (M&M) [1]. As well as conferring a potential M&M benefit, rib fracture blocks [2] may improve patient symptoms, prevent medical complications and improve hospital length of stay (LOS). We aim, 1. to determine whether rib fracture blocks improve LOS; 2. to determine whether a rib fracture care bundle improves access to blocks.

**Methods** We collected data over three months for patients who were admitted for over 24 hours with new rib fractures confirmed with imaging. We analysed the data for ‘booking to block time’ and LOS. We then introduced a care bundle comprising a new trust guideline, staff education sessions, an electronic ‘rib fracture block’ order set, observation sheets and a patient information leaflet. We allowed some time for the new pathway to embed and subsequently collected data over one month, looking at booking to block time.

**Results** The first study included 67 patients, of whom 34 were referred for a rib fracture block, of which 19 were performed. The mean booking to block time was 41 hours. The mean LOS for patients who received blocks was 16 days versus 17.5 days for those who did not. The second study included a total of 6 patients who received blocks. The mean booking to block time was 32 hours.

**Conclusions** We demonstrate decreased LOS with rib fracture blocks and improved access to them with an integrated care pathway.

**B181** BLOCK ROOM: SATISFACTION AND EFFICIENCY
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10.1136/rapm-2022-ESRA.256

**Background and Aims** The performance of regional anesthesia (AR) in a block room (BR) may have an impact on the efficiency of the Orthopedics operating room (OR). Our main goal is to evaluate the knowledge of healthcare professionals about AR and the BR.

**Methods** Two types of surveys, previously validated at independent hospitals, were delivered to orthopedists and OR nurses. We performed a descriptive analysis of the variables.

**Results** A total of 126 surveys were filled out, 46 by orthopedists and 76 by OR nurses. It was observed that both physicians and nurses frequently recommend anesthetic techniques to their patients (39.1%/34.2%) and 50% of physicians and 44.8% of nurses specify RA as the one to choose. Both groups consider that, compared to general anesthetics and intravenous analgesia, RA is safer (89.1%/69.7%) and associated with less sedation (95.6%/94.8%), better control of pain (95.7%/93.4%) and fewer side effects (63%/73.7%). Regarding patient satisfaction, both agreed that RA has better outcomes (84.7%/69.7%). They would choose RA for themselves (89.1%/89.5%) and recommend it to a family member (89.1%/92.1%). Speaking of BR, 80.4% of orthopedists agreed that it is associated with less time wasted in anesthetic preparation, higher productivity (65.2%) and greater efficacy (65.2%).

**Conclusions** We can conclude that most orthopedists and OR nurses recognized the various benefits of RA. Orthopedists agreed that BR is the key to allow RA to be used, improving outcomes and providing efficiency gains in the OR. Genuine support from the entire OR team could play a critical role in the change.

**B182** FASCIAL PLANE LOCAL ANAESTHETIC CATHETERS: VARIATION IN PRACTICE
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10.1136/rapm-2022-ESRA.257

**Background and Aims** Local anaesthetic catheters for fascial planes have become a crucial part of modern acute pain management strategies for trauma and post-operative patients. Whilst there is agreement that chest wall, abdominal and pelvic catheters are highly effective analgesia options it remains unclear which local anaesthetic is best and what the best mode of delivery is most efficacious and safe for patients. A survey was conducted to look at current practice across United Kingdom hospitals and assess variation.

**Methods** Survey via email of United Kingdom anaesthetic department regimes for fascial plane catheters including details on drug type, concentration and details of regime were requested. Fascial Plane catheters including Serratus Anterior, Erector Spinae, Rectus Sheath and Fascia Iliacus were all included.

**Results** 12 of 24 hospitals responded. 1 hospital used Ropivacaine (0.2%) and remaining 11 used Levobupivacaine with a range of strengths from 0.1% to 0.25% concentrations. 9 of 12 used continuous infusion regimes and 3 used bolus regimes (2 automated via pumps and 1 manual via clinician). None of the hospitals had the same infusion regimes. Rates varied from fixed 5 mls/hr to ranges from 1–14 mls/hr of 0.125% Levobupivacaine.

**Conclusions** Continuous regimes are still popular despite common belief that boluses should theoretically be more beneficial in opening up the fascial plane spaces. There should be more research into the best method to achieve efficacious and safe infusions for patients and perhaps a working group of experts should suggest best practice until appropriate research has been conducted.

**B183** AUTOMATED TEXT MESSAGE FOLLOW-UP FOR PERIPHERAL NERVE BLOCKS; A SECURE, USER-FRIENDLY METHOD
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10.1136/rapm-2022-ESRA.258

**Background and Aims** The follow-up of patients after peripheral nerve blockade is a labour-intensive but necessary job, in order to screen patients for both block satisfaction and rare complications. We aimed to develop an automated text message follow-up system to screen for these outcomes.
**Background and Aims**

We have previously reported that the exposure of human monocytic cells THP-1 to pulsed radiofrequency (PRF) electric field increased the mRNA for β-endorphin (J Pain Res 2018;11:2887–96), while it has not yet been clarified whether PRF application increases the production of acute inflammatory cytokines or chemokines from these cells. If the latter occurs, the beneficial roles of monocytic cells to recruit and stimulate the donor for acute inflammatory cytokines or chemokines have a property to enhance because these cytokines/chemokines have a property to recruit and stimulate the donor for β-endorphin.

**Methods**

PRF was applied for 15 min at the maximum power by using a NeuroTherm NT-500 radiofrequency generator to the pellet of THP-1 cells sedimented in a microtube filled with the culture medium incubated at 37°C as previously described. (J Pain Res 2018;11:2887–96) After the PRF application, cell culture continued for pre-selected period and the supernatant of THP-1 cells was collected for multiplex immunoassay (Bio-Rad Bio-Plex #m500kcaf0y).

**Results**

Level of RANTES, chemokine c-c motif ligand 5 (CCL5), as well as those of two acute inflammatory cytokines, IL-1β and IL-15, in the supernatant of THP-1 cells was significantly increased by PRF application as compared by those without application of PRF. Because RANTES plays an active role in recruiting leukocytes, and the latter cytokines stimulate the recruited leukocytes, the increase in the production of these cytokines/chemokines may enhance the beneficial action of PRF to alleviate pain.

**Conclusions**

Exposure of THP-1 cells to the electric field of PRF for 15 min increased the production of RANTES, IL-1β and IL-15 from these cells.