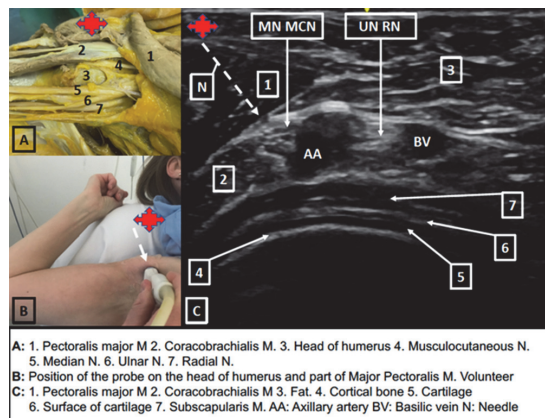


whether there were any differences in the patient experience for patients undergoing this type of surgery at our facility.

**Methods** All patients undergoing forearm/hand fixations between May and November 2020 at a large teaching hospital were studied retrospectively. Cases with any RA component were compared with GA-only cases. Time in recovery, time to discharge, nausea, pain scores and post-operative opioid requirements were studied. Ethical approval was not required for this study, as per our local committee.

**Results** 105 patients were included with results shown below. The breakdown of cases as wrist, proximal to wrist, and distal to wrist procedures were broadly similar in the RA group and GA group (78%,5%,17% vs. 89%,4%,7%) respectively. The incidence of severe pain was 3.5% (RA) vs. 41% (GA). The incidence of nausea was 2.5%(RA) vs. 9%(GA).



Abstract B84 Figure 1

**Results** Complete sensory and motor blockades were obtained for 17 patients (Age:  $52.75 \pm 13.48$ , BMI:  $31.20 \pm 11.51$ ) with  $19.95 \pm 3.07$  mL of lidocaine. Block performance time was  $7.06 \pm 2.18$  min, discomfort  $2.00 \pm 1.89$  cm. Onset times of sensory and motor blockades for MCN, MN, UN and RN were respectively  $8.16 \pm 4.78$ ,  $8.25 \pm 4.67$ ,  $9.16 \pm 6.00$ ,  $8.82 \pm 4.85$  min and  $10.00 \pm 5.77$ ,  $11.50 \pm 5.40$ ,  $12.22 \pm 6.91$ ,  $10.29 \pm 5.99$  min. Onset times of the 4 nerves were similar. One vascular puncture and 3 radial paresthesia occurred during blockade

**Conclusions** This study describes a novel and effective brachial plexus blockade technique at the level of the head of humerus where all nerves, far from the pleura, surround the axillary artery.

Abstract B83 Table 1

Values expressed as median (IQR)	RA cases (n=59)	GA only (n=46)	p value
Worst pain score in recovery unit	0 (0-0)	4.5 (0-8)	$p < 0.0001$
Recovery opioid requirements (IV morphine equiv. in mg)	0 (0-0)	3 (0-10)	$p < 0.0001$
Opioid requirements 1st 24 hours (IV morphine equiv. in mg)	1 (0-6)	4 (1-8)	$p = 0.0038$
Time in recovery (mins)	0 (0-30)	37.5 (30-55)	$p < 0.00001$
Time to discharge (hours)	16.5 (4.5-23)	22 (15.75-25)	$p = 0.005$

**Conclusions** Patients who received RA only during their operative procedure experienced a better recovery profile, at least in the short-term, with better pain scores, less opioid use and a shorter recovery and hospital stay. The high incidence of severe pain in the GA only group was almost entirely abolished with the use of a RA technique.

**B84 BRAINE BLOCK: BRACHIAL INTERMEDIATE NERVE BLOCK**

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**Background and Aims** The aim of this study is the description of an ultrasound-guided brachial plexus blockade at the level of the head of humerus where nerves are grouped around the axillary artery

**Methods** Ethics committee (CHU Liège. 2017/139–140) approved this study. 20 patients scheduled for hand and forearm surgeries were blocked in supine position, the arm abducted, the elbow flexed at 90 degrees. Musculocutaneous, median, ulnar and radial nerves (MCN, MN, UN, RN) were imaged in short axis with a linear probe. A 80 mm needle was inserted in-plane, lidocaine 1.5% with epinephrine 1:400,000 was injected. Demographic data, efficacy, block performance times, injected volumes, onset times of sensory and motor blockades, discomfort (visual analogue scale :0–10 cm), side effects were recorded. Results are expressed as mean±SD, mixed models with Turkey's multiple comparison tests were performed.

**B85 THE FIRST USE OF LIPOSOMAL BUPIVACAINE IN A UK NHS HOSPITAL: THE FUTURE OF OPIATE-FREE SURGERY?**

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10.1136/rapm-2022-ESRA.160

**Background and Aims** The development of an opioid-free, enhanced-recovery service is the goal of many regional anaesthetists. The use of peripheral nerve blockade using traditional local anaesthetics has allowed opiate-free anaesthesia in the intra-operative period, however, patients often require opiate analgesia post-operatively with related complications<sup>1</sup>.

We report the first use of liposomal bupivacaine (Exparel®), outside of the private sector, in a UK hospital. This allows for long-acting (>48 hrs) analgesia with minimal motor blockade after a single procedure<sup>2</sup>.

**Methods** This case series looked at the first 8 patients to receive the drug undergoing elective knee replacement surgery. All patients received spinal anaesthesia containing 0.5% Heavy Bupivacaine alongside motor sparing blocks of the knee, including the Adductor canal, nerve to Vastus Medialis, Genicular nerves and interspace between popliteal artery and capsule of the knee (IPACK). They were reviewed post-

operatively and by telephone at 72 hours and 1 week post-operatively.

**Results** All patients in the series had adequate post-op analgesia (average scores 2/10) with no patients requiring PRN morphine over 48 hrs. There were no reported anaesthetic-related complications. All patients had good physiotherapy outcomes with early mobilisation. The majority of patients were fit for discharge within 24 hours. Overall patient satisfaction with the procedure was very high with written compliments received by the trust.

**Conclusions** The use of liposomal bupivacaine has demonstrated excellent outcomes on analgesia requirements, patient satisfaction and hospital length of stay. The data from this case series will be used to further develop an opiate-free orthopaedic surgery and promote further research in the use of this drug.

B86

### PREP STOP BLOCK — ADAPTATION OF THE NEW UK STANDARD OPERATING PROCEDURE IN THE FORM OF A BLOCK BOX

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10.1136/rapm-2022-ESRA.161

**Background and Aims** In 2010 the 'Stop Before You Block' (SBYB) campaign was launched in the UK, aiming to prevent wrong sided regional anaesthetic blocks. Despite this, the incidence of wrong side blocks remains around 1 in 6250<sup>1</sup>.

In 2019, incidents of wrong sided blocks at Barts Health NHS Trust prompted renewed focus on block safety. We subsequently added an additional innovative safety layer: keeping block needles in a separate "block box", only to be opened after SBYB was completed. This protocol led to increased SBYB checks, reduced delay between SBYB and needle insertion and increased engagement of the team.

In 2021, a new 'Prep Stop Block (PSB)' campaign was launched, to be adopted nationally and replace SBYB<sup>2</sup>. We adapted the PSB policy to utilise the 'block box' at St Bartholomew's Hospital and audited the effectiveness of this new protocol.

### PREP – STOP – BLOCK – box

step 1	<b>PREP</b>
	<b>Led by assistant</b>
	Coagulation / anticoagulants / antiplatelets checked?
	IV access and SpO <sub>2</sub> , ECG and NIBP monitoring attached?
	Drugs ready and dose calculated?
step 2	<b>STOP</b>
	<b>Anaesthetist and assistant</b>
step 3	<b>BLOCK</b>
	<b>Anaesthetist and assistant</b>
	Open box, provide needle and proceed immediately with block If additional block needed, return to <b>step 1 PREP</b>
	<b>POST BLOCK</b>
	<b>Assistant</b>
	Restock and reseal box

Abstract B86 Figure 1

**Methods** We audited the new protocol by means of a survey. This was accessed via a QR code on the boxes and completed following block performance.

**Results** In 100% of regional blocks audited (12), a SBYB check was completed prior to needle insertion. The median time to complete the checklist was 20 seconds. The median time between completing the check and needle insertion was 37.5 seconds. All anaesthetists and ODPs strongly agreed that they were confident in using the block boxes and that they improved patient safety.

**Conclusions** This demonstrates that the PSB protocol can be adapted to incorporate the 'block box', potentially increasing adherence to the policy and improved patient safety.

B87

### A CADAVERIC STUDY DETERMINING OPTIMAL TECHNIQUES FOR ULTRASOUND-GUIDED PARASTERNAL INTERCOSTAL PLANE BLOCK

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**Background and Aims** Parasternal intercostal plane (PIP) block provides effective analgesia for the anteromedial thorax; however, the optimal technique has not been elucidated. This cadaveric study aims to describe the anatomy of the transversus thoracis muscle (TTM) and internal mamillary artery (IMA), and to investigate dye spread after superficial and deep approaches of PIP block.

**Methods** The study was approved by the hospital ethics committee (ANE-256307685). After sonographic examination, superficial or deep PIP blocks with single or multiple injections were randomly applied in 24 hemithoraces. Twenty mL of dye was injected for each block. On dissection, dye distribution over the intercostal spaces (ICS) was recorded.

**Results** The TTM was consistently found at the 2nd-6th ICS on both sides of the thorax. Agreement between the sonographic identification and presence of the TTM was higher than 80% at the 2nd-5th ICS. Along the 2nd-6th ICS, the IMA located medial to the halfway between lateral border of the sternum and the costochondral junction, and the mean distance from the sternal border was 9.3 (4.8) mm. For both superficial and deep approaches of PIP block, the more numbers of injections rendered the wider dye distribution. The numbers of stained ICS after superficial PIP block at 2nd, 4th, and 5th ICS, and deep PIP block at 3rd and 5th ICS were 5.3 (1.2) and 5.7 (0.6), respectively.

**Conclusions** Triple injections at the 2nd, 4th, and 5th ICS for superficial approach and double injections at the 3rd and 5th ICS for deep approach were optimal techniques of PIP block.