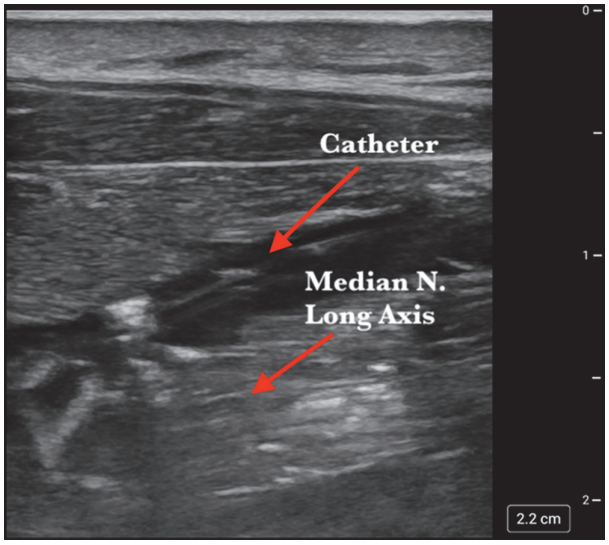

Abstract B66 Figure 2

Abstract B66 Figure 3

Results The patient reported no surgical pain and required no opioids during the duration of the catheter. Postoperative radiographs at 2 weeks showed bony bridging indicative of early bone fusion. The middle finger sensation returned 24 hours following the discontinuation of the infusion and the patient reported minimal pain.

Conclusions A distal nerve catheter can provide excellent analgesia while maintaining motor function of the arm.Additional benefits may be in increasing the blood flow and decreasing the fusion time which needs further investigation.

B67 DOES THE ADDITION OF ULTRASOUND-GUIDED GENICULAR NERVE BLOCKS CONTRIBUTE TO POSTOPERATIVE PAIN RELIEF AFTER TOTAL KNEE ARTHROPLASTY? A PRELIMINARY STUDY

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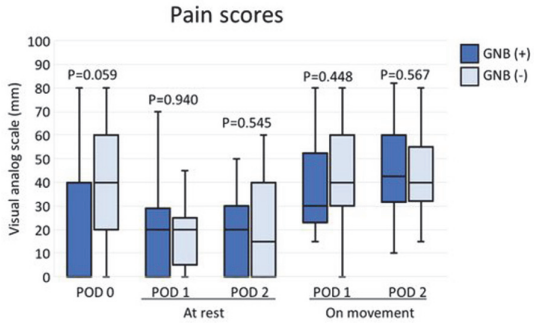
10.1136/rapm-2022-ESRA.142

Background and Aims Total knee arthroplasty (TKA) is associated with intense postoperative pain, for which continuous femoral triangle block (FTB) and infiltration between the popliteal artery and the capsule of the posterior knee (iPACK) block have been used. Recently, genicular nerve blocks (GNBs) have attracted attention as a more selective technique to help relieve knee pain, so we have started adding this technique to the combination of the blocks above. In the present study, we retrospectively compared postoperative pain levels to see if the addition of GNBs benefit patients undergoing TKA.

Methods With IRB approval, we conducted a retrospective analysis of data that had been collected prospectively from patients undergoing TKA and receiving our standard analgesic regimen including continuous FTB and iPACK block between July 2021 and January 2022 in our hospital. We compared patients with and without GNBs regarding intra and postoperative data including pain scores, analgesic requirements and adverse events.

Results Thirty-two patients (19 and 13 patients with and without GNBs, respectively) were evaluated. Demographics of the patients were comparable. There was a tendency that pain levels on the day of surgery were lower in patients with GNBs than those without. But the two groups did not differ in pain scores, analgesic requirements. No severe complications related to blocks was observed.



Abstract B67 Figure 1

Conclusions The results of this retrospective study using a small number of patients suggest that the additional benefits of GNBs is, if any, limited for early postoperative period. A prospective randomized study may be warranted to confirm the present results.

B68 ESTABLISHING A REGIONAL NERVE BLOCK PATHWAY FOR PATIENTS PRESENTING WITH RIB FRACTURES AT A TRAUMA UNIT IN LONDON

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10.1136/rapm-2022-ESRA.143

Background and Aims Rib fractures are a common injury following blunt chest wall trauma[1], leading to significant morbidity and mortality[2].

Effective patient analgesia is pivotal. Guidelines advise multimodal analgesia, including thoracic epidural analgesia (TEA) or regional nerve blocks such as serratus anterior (SA) or erector spinae plane (ESP) blocks[3].

Our hospital is a trauma unit in North East London. We developed a standard operating procedure and training to provide SA and ESP blocks for our patients with rib fractures.

Our aim was to audit the effectiveness of these blocks in patients with rib fractures.

Methods Patients presenting with rib fractures (between May and December 2021) were assessed pre and post regional block. Pain was evaluated at rest and on movement using the Visual Analogue Scale (VAS). Patients were also judged for their ability to cough and deep breathe.

Results 9 patients had regional blocks performed. 7 patients had a SA block (one with bilateral blocks) and 2 patients had an ESP block.

Mean VAS scores were significantly reduced following regional block from 6.1 to 1.3 at rest ($p< 0.001$) and 8.6 to 4.8 on movement ($p<0.0001$). The number of patients able to deep breathe increased from 1 to 8 and the number of patients able to cough increased from 0 to 7 following regional block. No complications were observed in any patients.

Conclusions This audit data demonstrates that introducing a regional block service for rib fracture patients in a district general hospital is a potentially safe and effective method at reducing pain and improving pulmonary function.

B69 OPTIMISING LOCAL ANAESTHETIC ADMINISTRATION IN ERECTOR SPINAE PLANE CATHETERS FOR TRAUMATIC RIB FRACTURE: A QUALITY IMPROVEMENT INITIATIVE

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10.1136/rapm-2022-ESRA.144

Background and Aims The erector spinae plane (ESP) block is safe and effective following traumatic rib fracture[1]. The optimal regimen for local anaesthetic (LA) administration remains unknown. At our institution patients receive either a continuous infusion of 0.125% bupivacaine (up to 10 ml/h, 20 ml boluses 6 hourly as required), or a patient controlled regional anaesthesia (PCRA) regimen (4 ml/h background rate, 30 ml boluses, lockout time 4h). We aimed to identify and standardise best practice.

Methods Following approval by local audit department, a retrospective case note review was performed between 1/6/21 to 30/11/21. Numerical rating pain score (0 = nil, 3 = severe) at rest and on movement, spirometry values, rescue oral opioid administration were assessed for the first 72h, and mean LA usage per day across the entire catheter duration. The impact of associated pulmonary injury on total catheter duration was also assessed.

Results 21 patient received ESP catheters. Mean catheter duration was 4.8 days (SD 1.6). The 12 patients with an associated pneumothorax, haemothorax or pulmonary contusion had a longer catheter duration (5.4 days, 95% CI 4.6 – 6.3) compared to those without (4.7 days, 95% CI 2.9 – 5.3), although this did not reach statistical significance ($p = 0.06$). No significant difference was found in any of the parameters studied (table 1).

Abstract B69 Table 1

Parameter	Continuous	PCRA	p-value
N	9	12	
Age (y)	69.9 (16.0)	67.2 (10.8)	0.65
Weight (kg)	75.7 (15.1)	83.6 (22.6)	0.38
Rest pain (0 – 3)			
D1	1.1 (0.6)	1.2 (0.6)	0.39
D2	0.9 (0.7)	1.4 (0.7)	0.12
D3	0.9 (0.6)	1 (0.7)	0.42
Movement pain (0 – 3)			
D1	1.9 (0.6)	2.1 (0.6)	0.34
D2	1.8 (0.8)	2.1 (0.5)	0.51
D3	1.8 (0.6)	1.8 (0.9)	0.95
Worst pain (0 – 3)			
D1	2.3 (0.5)	3 (1)*	0.21
D2	2.4 (0.7)	2.3 (0.6)	0.30
D3	2 (0)*	2.2 (0.8)	0.76
Spirometry (ml)			
D1	1380 (1114)	1815 (1057)	0.47
D2	1420 (683)	1707 (881)	0.56
D3	1967 (1141)	2193 (1108)	0.72
Rescue opioid dose (oral morphine equivalents, mg)			
D1	16.1 (14.4)	20.2 (23.5)	0.33
D2	21.4 (27.6)	26.0 (25.0)	0.35
D3	15.5 (16.0)	13.4 (13.9)	0.38
Mean LA/d (ml 0.125% bupivacaine)	209.2 (46.9)	203.2 (31.2)	0.73

Table 1: Continuous LA infusion vs PCRA. All data normally distributed and presented as mean (SD) and compared with unpaired t-test, except where * exists, when presented as median (IQR), compared with Mann-Whitney U test. Intention to treat analysis.

Conclusions Our local data demonstrates that both regimens provide equivalent analgesic and respiratory effect, without affecting LA consumption. This provides flexibility, allowing an individualised approach to managing these patients, taking in to account patient preference, ability to comply with a PCRA regimen, and local resources.

B70 THORACIC SURGERY PERFORMED WITH PARAVERTEBRAL BLOCK REGIONAL ANAESTHESIA ALONE IN HIGH RISK PATIENTS

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10.1136/rapm-2022-ESRA.145

Background and Aims Thoracic surgery is traditionally performed under general anaesthesia. Increasing patient complexity with comorbidity and frailty requires consideration of detrimental impacts of general anaesthesia, and awareness of alternative approaches to enable surgery. Paravertebral block regional anaesthesia alone is an effective alternative to facilitate thoracic surgery. We present a case report from our series.

Methods We hypothesised thoracic surgery could be achieved for high risk frail, elderly, and comorbid patients with provision of paravertebral block regional anaesthesia alone. Our case description reflects the evolution of our approach to this high risk population in our dedicated thoracic surgical unit at Guy's Hospital, London, UK.

High risk patients underwent surgical thoracoscopy, diagnostic pleural tissue sampling, and evacuation of pleural effusion with placement of indwelling drains.

We developed a process to facilitate surgery with ultrasound guided paravertebral regional anaesthesia alone. The procedures were successfully completed with no requirements for supplementary analgesia, intravenous sedation, or induction of general anaesthesia.