

and earlier discharge.^{1,2} At our hospital, we have a sizeable paediatric surgical population and RA is frequently used. This audit was triggered by 2 complaints about transitional analgesia following RA on the paediatric ward.

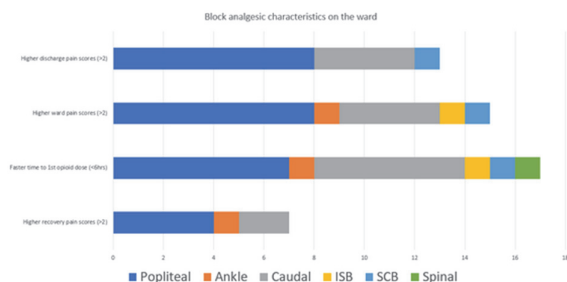
Aims

- Define patient cohort and assess efficacy of analgesic techniques.
- Assess if there is a hidden problem of inadequate transitional analgesia following RA
- Suggest an approach for managing transitional analgesia

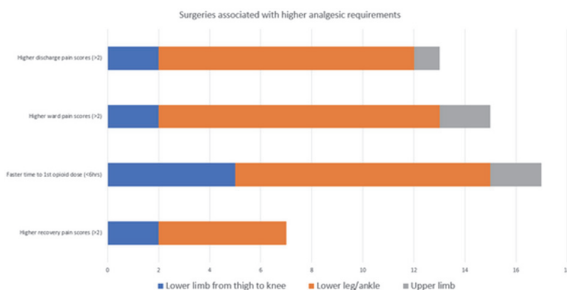
Methods After ethics committee approval, a retrospective audit was done to assess the analgesic requirements after RA co-anaesthesia techniques in paediatric patients. Type of surgery/RA, intraoperative and postoperative analgesic requirements, recovery pain scores, time to 1st opioid and 24 hour opioid requirements, highest pain score on the ward and pain score on discharge were recorded. Patients sent to PACU or needing a PCA were excluded.

Results 31 female and 29 male children varying from 6 months -17 years operated from Jan to June 2020 were included.

Recovery, ward and discharge pain scores were higher and time to first rescue opioid was shorter in popliteal and caudal blocks and surgeries on lower leg and ankle.

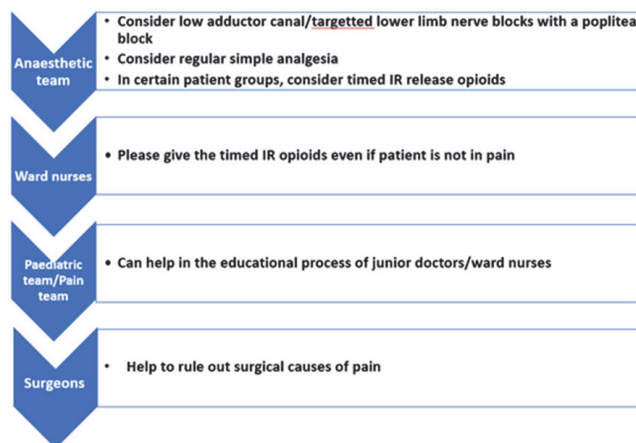


Abstract B429 Figure 1



Abstract B429 Figure 2

Conclusions Children undergoing lower leg/ankle surgeries with popliteal/caudal blocks could benefit from targeted post-operative analgesia. This group can be the one to trial timed immediate release (IR) opioid doses (6 hours postop) and education to ward staff to ensure that they receive it. A high quality low risk team based plan is suggested as below.



Abstract B429 Figure 3

B430 DISPARITIES IN PAEDIATRIC FRACTURE TREATMENT IN THE UNITED STATES

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Background and Aims Fractures are one of the most common causes of emergency department visits in pediatric patients in the United States.¹ Timely treatment of these injuries is essential as a delay in management can lead to long term functional impairment, and additional operative procedures.² We sought to examine trends and identify factors that may be associated with operative management by utilizing a large national database.

Methods This study was approved by the institutional review board of the Hospital for Special surgery (IRB#2017-0169). Using Truven Health Marketscan 2015-2019, we identified patients under 21 years who were diagnosed with fracture at hand/wrist, foot/ankle, forearm, or lower leg level. The outcome was if patients received surgical treatments within 3 months of a fracture. A multivariable logistic regression model was created to identify risk factors for surgical treatment after fracture.

Results Among the 325,853 pediatric fracture cases we identified, 4.4% cases received surgical treatment within 3 months after first fracture diagnosis. Multivariate logistic regression showed that independent risk factors for surgical treatment after fracture diagnosis included older age, male gender, having 1 or more comorbidities, obesity, lower leg fracture, residence in North Central and South compared with Northeast, and lower household income. (Table 1)

Abstract B430 Table 1

Table 1. Demographics and Risk Factors for Surgical Treatment after Fractures

	Non-Surgical	Surgical	Odds Ratio 95% CI (Ref=non-surgical)*	p value
N (%)	311,615 (95.6)	14,238 (4.4)		
Age group				
0-5	34,107 (10.9)	1055 (7.4)	reference	
6-12	131,294 (42.1)	3639 (25.6)	1.15 (1.07, 1.24)	<.001
13-18	113,764 (36.5)	6521 (45.8)	2.11 (1.97, 2.26)	<.001
19-21	32,450 (10.4)	3023 (21.2)	3.38 (3.14, 3.64)	<.001
Gender				
Female	133,429 (42.8)	5242 (36.8)	reference	
Male	178,186 (57.2)	8996 (63.2)	1.2 (1.16, 1.25)	<.001
Deyo Index				
0	273,396 (87.7)	12182 (85.6)	reference	
1+	38,219 (12.3)	2056 (14.4)	1.18 (1.12, 1.24)	<.001
Obesity				
No	298,144 (95.7)	13,402 (94.1)	reference	
Yes	13471 (4.3)	836 (5.9)	1.22 (1.13, 1.31)	<.001
Opioid Naive				
No	21016 (6.7)	1340 (9.4)	1.07 (1, 1.13)	
Yes	290599 (93.3)	12898 (90.6)	reference	0.038
History of taking anti-anxiety or anti-depressant medication				
No	303295 (97.3)	13738 (96.5)	reference	
Yes	8852 (2.8)	543 (3.8)	1.02 (0.93, 1.11)	0.746
Fracture location				
Hand and wrist	107003 (34.3)	4279 (30.1)	reference	
Foot and ankle	84766 (27.2)	3317 (23.3)	1.02 (0.97, 1.07)	0.482
Forearm	96309 (29.0)	2952 (20.7)	1.04 (0.99, 1.09)	0.143
Lower leg	29537 (9.5)	3690 (25.9)	3.24 (3.09, 3.39)	<.001
Region				
Northeast	61746 (19.8)	2397 (16.8)	reference	
North Central	67301 (21.6)	3704 (26.0)	1.33 (1.26, 1.41)	<.001
South	130358 (41.8)	5950 (41.8)	1.1 (1.04, 1.16)	0.001
West	50726 (16.3)	2133 (15.0)	1.07 (1, 1.13)	0.047
Unknown	1484 (0.5)	54 (0.4)	0.86 (0.65, 1.14)	0.296
Income Category				
Unknown	55902 (17.9)	2791 (19.6)	1.17 (1.1, 1.24)	<.001
<\$58,000	59424 (19.1)	2916 (20.5)	1.13 (1.06, 1.2)	0.002
\$58,000-\$76,000	128868 (41.4)	5932 (41.7)	1.09 (1.03, 1.15)	<.001
>\$76,000	67421 (21.6)	2599 (18.3)	reference	

*A multivariable logistic regression model was created to identify risk factors for surgical treatment after fracture including age, gender, Deyo comorbidity burden, obesity, history opioid use, history of anti-depressant or anti-anxiety medication use, fracture location, region, and household income level.

Conclusions Our study demonstrates a number of demographic variables that are independently associated with the use of a surgical approach to repair pediatric fractures. The significance of a number of these findings could highlight the stark differences and disparities in fracture care for pediatric patients in the United States.

B431 LATERAL ERECTOR SPINAE PLANE BLOCK FOR LENGTHENING OF GROWING SPINAL RODS AFTER PREVIOUS SPINAL INSTRUMENTATION IN CHILDREN. CASE SERIES

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Background and Aims Ultrasound guided erector spinae plane block (ESPB) is very effective means of pain relief for spinal surgeries. Some pediatric patients need their spinal surgeries at earlier age, and due to further growth, they need various additional procedures, most often, lengthening of metal rods. These instrumentations make the visualization of a transversus process very difficult or impossible. Since June 2019 we have been using more lateral approach for this successful nerve blockade, where we used a rib as a landmark structure instead of transversus process. We have called this block Lateral ESPB (LESPB).

Methods After approval from the local ethical committee, we identified medical records of patients who received LESPB since June 2019. On one side we performed Lateral ESPB and we injected local anaesthetic more laterally where shadow of the rib could be seen. On contralateral side, where

transversus process could be visible we proceed with conventional ESPB.

Results We found 6 patients who fulfilled our criteria. Pain scores in recovery 1 and 6 hours after a surgery were 0 except one patient who had pains score 5, 1 hour after surgery, but no intervention was needed. No opioids were used in first 6 hours in any patient and 3 out of 6 patients (50%) received no opioids postoperatively.

Conclusions From our very limited experience we can conclude that Lateral ESPB is valuable block which can provide significant pain relief post spinal instrumentation where transversus process cannot be visualised by ultrasound.

B432 OPIOID SPARING EFFECT OF PENG BLOCK IN OPEN REDUCTION OF PEDIATRIC DEVELOPMENTAL DYSPLASIA OF THE HIP: A CASE SERIES

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Background and Aims Developmental dysplasia of the hip (DDH) is a frequent problem that is treated with open hip surgery, which is associated with severe postoperative pain. Caudal and lumbar plexus blocks are the most common regional blocks, which are advanced techniques (1). Pericapsular nerve group (PENG) block is a novel block that targets articular branches of the accessory obturator nerve and femoral nerve, which has been shown to have a major role in the innervation of the hip capsule (2). In this case series, we describe our experience with the PENG block in 5 pediatric patients with DDH.

Methods Five patients aged between 10 and 20 months who scheduled for DDH surgery was taken to operating theatre. PENG block was performed following general anesthesia induction. Using linear probe, 50 mm needle was inserted from lateral to medial with an in-plane approach, and 0.5 mL.kg⁻¹ 0.25% bupivacaine was injected in the space between the psoas tendon and the iliopubic eminence. At the end of the surgery, the patients received 15 mg.kg⁻¹iv paracetamol, and FLACC score was used for assessing the pain.

Results All patients' FLACC scores were between 0 and 2 in the first 24 h period. Two patients were treated with paracetamol at postoperative 8th and 10th h. No other analgesic drug was used during the first 24 h.

Conclusions This case series showed that PENG block provided effective postoperative analgesia and provided pain-free period after DDH surgery without the need of opioids. However, we think that future randomized controlled trials are needed.

B433 PEDIATRIC ANESTHESIA PRACTICES DURING THE COVID-19 PANDEMIC

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Background and Aims The onset of the coronavirus 2019 (COVID-19) pandemic brought together the American Society