

## **Retrospective Assessment of the Quality of Aftercare Provided to the Patients who have Received Regional Nerve Blockade in a Tertiary Care Center**

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**Received:** September 21, 2021; **Published:** September 28, 2021

### **Introduction**

The increased interest and practice of regional anaesthesia has resulted in more patients being exposed to the benefits of excellent postoperative analgesia. As health care systems seek more information on quality and safety, registries are gaining the attention of funders, regulators, and administrators. Clinical registries gather information from persons who have a procedure, are diagnosed with an illness, or use a health-care resource in a systematic and standardized way. As well, advances in both equipment and education have improved the safety profile of regional anaesthesia [1]. The use of nerve blocks for regional anaesthesia of surgical patients and post-operative analgesia has a positive impact on their outcomes by improving Patient satisfaction, recovery quality, reducing opioid usage, and decreasing the amount of time spent in recovery [2].

### **Methods**

Data were collected retrospectively from the records of patients who received regional nerve blocks from January - June 2018 at UCHG in the main theatre Block Bay. Post-operative follow-up on the second day of surgery by the regional block bay trainee, though visiting the in-patients or calling the outside (discharged) patients by phone if they were same day or day case surgery to assess the duration of every block, Complication, and level of satisfaction. Compliance to following Up patients is continuously performed In UCHG to encourage continuous improvement in the quality and safety of the blocks administered to patients as part of the Plan-Do-Study-Act (PDSA) cycle. The data were collected to an excel spreadsheet and included. A-Demographic data: Age, American Society of Anaesthesiologists (ASA) Classification, type of the block. B-Knowledge delivered to the patients (Information leaflet). C-Patient's feedback regarding (resolution of motor and sensory blockade, duration of the block, residual motor or sensory blockade, degree of pain at offset and patient satisfaction).

### **Results**

350 patients received regional anaesthesia, with an average Age 49.7%, variable ASA grades. Upper limb blocks represented the majority 69% (axillary blocks, n = 165 patients, supraclavicular blocks, n = 35 Patients, interscalene block, n = 19 patients, forearm blocks, n = 15 patients), lower limb blocks 20%, paravertebral blocks 7%, superficial cervical plexus blocks 1%, quadratus lumborum blocks 1% and pectoralis blocks 2%. The knowledge was delivered to the patients by giving them a pre-prepared information leaflet containing an explanation of the regional nerve block process, (235 patients received it, 47 patients did not receive it and in 8 cases it was not recorded). The duration of the block varied, in 27% was less than 6h, 53% was between 6 - 12h, 19% was between 12-h and in 1% of patients was more than 24h. Follow up showed 168 patients were not follow up, 128 patients were followed up either by visiting their rooms or by phone call, 35 patients were contacted by phone but did not answer, 4 patients had invalid numbers, 5 patients did not have a recorded number, 3 patients replied that it was not a suitable time to call them, and 7 patients had a language barrier with very little or no English.

The reported complication during the study period, revealed 5 out of the 350 patients, 1 patient had sensory anaesthesia, 2 patients had delayed recovery of sensory and motor block, 1 patient had shoulder pain and 1 patient had wrong side block.

### **Discussion and Conclusion**

Our results highlighted that the follow up was not adequately performed however improved slightly more than last year (2017) 37% vs 30%. Of note, 15% of patients were contacted with no answer due to various reasons. The records also revealed a huge workload in the main theatre area, as for every single patient we had to, do preoperative assessment and document in the pre-anaesthesia sheet, get IV Access, connect the patient to the monitor; Prepare the regional anaesthesia tray, sterilize and drape the patient, Performing the block, dispose of the sharps, clean and disinfect the US machine and probes, record the details of (the patient, the block, events, kind of surgery, local anaesthetics used and their concentration, the patient's phone number and whether the information leaflet was given to the patient or not). As well, to staff the drawers with all the consumables required for the block to run the service and to record the steps of disinfection between the patients, before the first block as the machine may be used during the night by the on-call team and at the end of the day in a special book. Finally, follow up the previous patients done the day before was recorded after visiting in-patients or calling out-patients by phone.

The rate of temporary injuries (4 out of 350 patients was 1.1%) which was slightly higher than the international range (0.01 - 0.8%) as per [3]. These cases were linked to one of the regional anaesthesia consultants, given appointments for follow up in the clinic. The patient who had the sensory paraesthesia and the 2 patients who had delayed sensory recovery, were all self-recovered over 2 months. 1 patient out of 350 had wrong site block (0.28%), compared to 1.28%/10000 for unilateral blocks (the first identified incidence for wrong site block in the UK as per [4], however, the sample size was 85 915 compared to 350 patients. An open disclosure, explanation and apology for the patient who had the wrong side/site nerve block were done by both the trainee and the consultant and the patient accepted. All the 5 cases that had complications were discussed in the monthly morbidity and mortality meeting, root cause analysis for the wrong site block revealed that the patient was planned for unilateral femoral block and the side was not marked. Further measures such as the checklist and stop before you block label, were highlighted as safety tools to avoid the wrong blocks. Following that wrong block, a checklist with all the steps was done, printed, and labelled in the block bay as well as a stop before you block sign was attached to both screens of the ultrasound machines. 30% of the followed-up patients (37%) were satisfied and 7% were unsatisfied due to pain at the offset of the local anaesthesia. We re-emphasized the importance of giving pain killers to the patients before the local anaesthesia wears off to the nurses in the wards. We suggested creating positions for further anaesthesia nurses to be recruited for the block bay team to facilitate and decrease high workloads and help in the process of follow up. We also suggested an electronic system for Records and follow up.

### **Bibliography**

1. Brahmabhatt A and Barrington MJ. "Quality Assurance in Regional Anesthesia: Current Status and Future Directions" (2013): 215-222.
2. Chazapis M., *et al.* "Improving the Peri-operative care of patients by instituting a "Block Room" for Regional Anaesthesia". *BMJ Quality Improvement Reports* 3.1 (2014): u204061.w1769.
3. Faccenda KA and Finucane BT. "Complications of Regional". *Anaesthesia Incidence and Prevention* 24.6 (2001): 413-442.
4. Hudson ME., *et al.* "Wrong-site nerve blocks: 10 yr experience in a large multihospital health-care system" 114 (2015): 818-824.

**Volume 5 Issue 10 October 2021**

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