# NEEDS ASSESSMENT FOR THE DEVELOPMENT OF A REGIONAL ANAESTHESIA AND ACUTE PAIN CURRICULUM FOR ANAESTHESIA STUDENTS IN THE UNIVERSITY OF ZIMBABWE

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## INTRODUCTION

The world is seeing an increased demand for regional anaesthesia (RA), both central neuraxial blocks and peripheral nerve blocks (PNBs). [1] Appreciation of the numerous patient, surgical and economic advantages has pushed this drive. [2-4]. The advantages include better acute pain management; decreased opioids use, reducing costs and side effects; early ambulation; shorter hospital stay reducing costs for both the hospital and the patient; decreased stress response to surgery and overall increased patient satisfaction; higher patient turn over and reduced cost of anaesthetic and analgesic drugs [2-4]. Despite these advantages there is a lag in the teaching and performance of RA particularly PNBs [5] In Zimbabwe RA is taught during 3 didactic lectures lasting 2 hours each. One lecture covers central neuraxial blocks (CNBs) and the remainder PNBs. Pain is covered in a single lecture with limited focus on multimodal pain management and the role of RA. CNBs are adequately taught using an apprenticeship model. However little to no practical teaching of PNBs occurs. This needs assessment aimed to establish the students', past and present, perceived training needs and preferred training modalities. As well as faculty's perceptions of the current and future Regional Anaesthesia and Acute Pain Management (RAAPM) training

## MATERIALS AND METHODS

Ethical approval was granted by the Medical Research Council of Zimbabwe (MRCZ/B/1273).

Document review of post-operative pain scores and performance of PNBs in theatres was conducted. Current practice and perceived training needs were established by means of a self-administered questionnaire for locally trained anaesthetists working in the teaching hospitals; focus group discussions with anaesthesia trainees; and focused faculty interviews

## RESULTS

Document review showed post-operative pain is poorly managed with higher pain scores recorded in those who did not receive a RA technique. Over a 3 month period (Nov 2013-Jan 2014) 1/111(0.9%) patients presenting for upper limb surgery who could have benefited from a PNB as anaesthesia/analgesia received one. 5 of the 9 faculty were interviewed and all considered the RAAPM training deficient. "More could be done to produce a better anaesthetist that could independently and confidently practice RA". 10/10 questionnaires distributed to 23 of the practicing anaesthetists were returned. All were performing spinals daily-weekly and PNBs monthly to yearly. 60% cited lack of knowledge as their reason for not performing PNBS. 100% thought their training in RAAPM was inadequate. Three focused group discussions were conducted with 11/19 of the anaesthesia trainees. Most were performing spinals daily/weekly; 4(36%) had performed an epidural and only 1 (9%) had performed 2 PNBs. "Theoretical knowledge is stressed as it was an exam question, but little emphasis is placed on the practical skills of PNBs resulting in lack of expertise and confidence." They considered it an invaluable skill that required formal training. None were performing post-operative pain assessment and management rounds although they thought it necessary. 10/11 (90%) would enroll in a fellowship were it offered.

TABLE 1. POST-OPERATIVE PAIN SCORES

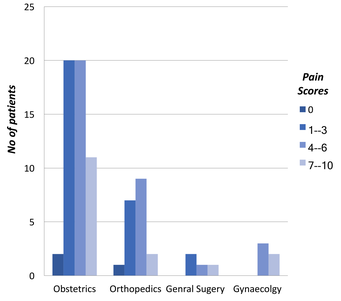



TABLE 2. UPPER LIMB SURGERIES NOV 2013 - JAN 2014 AT HARARE CENTRAL HOSPITAL

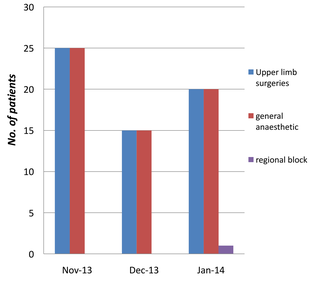
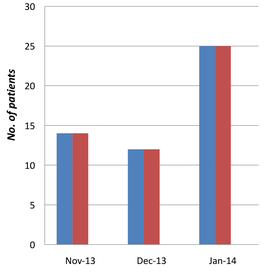



TABLE 3. UPPER LIMB SURGERIES NOV 2013 - JAN 2014 AT PARIRENYATWA GROUP OF HOSPITALS




## DISCUSSION

We demonstrated the need for a formal RAAPM curriculum in the department of anaesthetics and critical care medicine. Introduction of this curriculum would ensure production of competent anaesthetists for the benefit of the department, patients and the hospitals.
In our current curriculum rotations are by surgical discipline and as such aligned to surgical lists. This schedule is already busy. Thus introducing a new rotation presents difficulties.

In North America regional anaesthesia training is a fellowship done after basic training. In our setting we aim to equip every anaesthetic trainee passing through the department with comprehensive RA skills. We intend to introduce a longitudinal RA training that ensures a trainee gets an opportunity throughout their time in the department to have RA techniques exposure. They can then build, over the 4 years ,skills in a variety of blocks under supervision. They will be expected to take opportunities in between to identify patients who could benefit from a RA technique for anaesthesia and analgesia,
Along side these developments a RA special interest group has been established to foster the development of regional anaesthesia in Zimbabwe.

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