

## 1. INTRODUCTION

Hip fractures are a frequent, morbid and costly event amongst the elderly population. The prevalence is increasing with an aging population, making hip fractures a major public health concern. A myriad of controversies exist regarding best anaesthetic practice for hip fracture patients.

## 2. AIMS

This audit aims to identify trends in the anaesthetic management of hip fracture patients and to improve the anaesthetic practice in order to reduce mortality.

## 3. STANDARDS

Current NICE, SIGN and AAGBI guidelines were used to identify the ideal anaesthetic techniques used as standards:

- Spinal Anaesthesia (SA) should be used in preference to General Anaesthesia (GA)<sup>1</sup>
- Nerve block should be given to all patients<sup>1,2</sup>
- No patients should receive simultaneous SA and GA<sup>3</sup>
- Supplemental oxygen should always be supplied during SA<sup>3</sup>

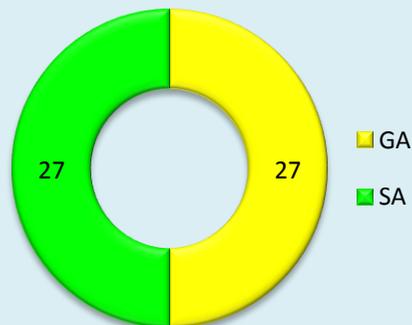


Figure 1: Chart showing the type of anaesthesia used for patients

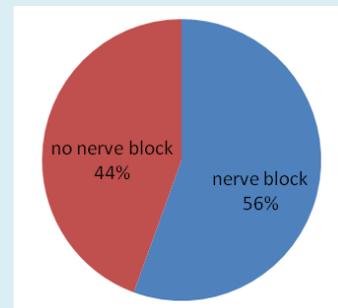


Figure 2: Chart showing the % use of nerve blocks

## 4. METHODS

Medical records of 54 consecutive patients aged  $\geq 60$  years that were admitted with a hip fracture and surgically managed were reviewed. Data was collected over a 5-month period.

## 5. RESULTS

Equal numbers of patients had GA and SA. Only 56% of patients were given a nerve block as suggested in SIGN guidance and <15% of these were ultrasound-guided. Opioid use prior to SA was high – 81% of sedated patients received an opiate. 75% of patients received documented supplemental oxygen during SA in accordance with AAGBI guidelines.

Moderate Bone Cement Implantation Syndrome (BCIS) affected over one third of patients undergoing a procedure involving cement. However, the incidence was unknown in 35% of cases due to insufficient documentation.

## 6. CONCLUSION

The anaesthetic management of hip fracture patients is widely variable. SA should be encouraged in the absence of contraindications and the high use of systemic opioids should be minimised by using nerve blocks for analgesia to reduce the risks of postoperative confusion and cognitive dysfunction. Supplemental oxygen should always be given to patients having SA and documented clearly. Time of cement insertion should also be always documented as it is a potentially critical event due to the possibility of BCIS.



### References:

- (1) SIGN guidelines. Management of Hip fracture in older people. Available at: <http://www.sign.ac.uk/pdf/sign111.pdf> [Accessed July 6 2013]
- (2) NICE guidelines. The management of hip fracture in adults. Available from: <http://guidance.nice.org.uk/CG124/Guidance/pdf/English> [Accessed 6 July 2013]
- (3) AAGBI Proximal Femoral Fracture Guidelines 2011. Available from: [http://www.aagbi.org/sites/default/files/femoral%20fractures%202012\\_0.pdf](http://www.aagbi.org/sites/default/files/femoral%20fractures%202012_0.pdf) [Accessed 6 July 2013]