



**Case study: Improving mortality figures**  
**St George's Hospital, London**  
**Shamim Umarji, Orthopaedic surgeon**

**Background**

In 2016 NHFD reported outlier mortality at St George's hospital of 13.9% for hip fracture (almost double the national average of 7%). We responded to this outlier status and a series of actions were undertaken which resulted in mortality being successfully reduced to 7.6% in 2017 which recent data suggests has been maintained for 2018.

**Aim**

We wanted to investigate what had led to the high mortality finding, to put in place measures to reduce it and prevent high mortality in the future.

**Process**

Together with orthogeriatricians and surgeons, the hospital mortality group performed a comprehensive case by case analysis of all hip fracture deaths in 2016 which amounted to 23 deaths from 203 patients. It was clear that this was a very unwell cohort of patients as 17% were considered too sick for surgical intervention.

Several learning points emerged from the experience of practise review, including: the need for a high dependency unit; the need for 'Board to ward' engagement; recognition that these were a very sick group of patients for any of which this was an end of life event; the importance of orthogeriatric review; the need for a detailed review of non-operative deaths and formalisation of the decision making process; and the need for regular discussions with the T & O department about mortalities, morbidities, BPT and so on.

In particular, two important areas were identified through the Case Review. Firstly, the need to improve data quality was identified as it was noted that 13% of entries to the NHFD did not contain ASA grade. This potentially could have a significant impact on the mortality figures once case mix adjustment is performed.

Secondly, there was a need for an oversight group. The Hip Fracture Working Group was thus formed and comprised an orthopaedic surgeon, orthogeriatrician, anaesthetist and specialist nurse. The group met monthly and reviewed all BPT misses as well as mortalities and other aspects of care. Key messages were passed on to the junior doctors, surgeons, anaesthetists, physiotherapists and nursing staff as necessary.

**Outcomes**

All parameters have gradually improved over time. In particular, BPT has improved from 66.2% attainment in 2016, 79.3% in 2017 and 83% for 2018. The improvement in BPT has correlated with prompt surgical timing which was 74.9% in 2016, increasing to 80.3 for

2017 and 84% for 2018. This is a significant improvement especially given the ongoing challenges of prioritising major trauma patients.

The case by case review had been presented to our commissioners and the CQC, as well as discussed and presented within the orthopaedic department at consultant level. The hospital's Medical Mortality Group (MMG) also looked into this in great detail. The higher mortality was also discussed at an external GIRFT review in July 2017.

The executive management team and Medical Director together with Surgical, Orthogeriatric and anaesthetic leads were positively engaged with the mortality and practise review, as well as the process of learning.