



## AB112. 152. Pilot study: investigating the impact of diabetes on the outcome of hip fracture surgery

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**Background:** A large literature base demonstrates that individuals living with diabetes mellitus (DM) are at a high risk of post-operative complications following hip fracture surgery, and have a higher mortality rate than non-diabetic patients. To date, this has never been shown in an Irish population. The aim was to quantify the impact DM has on hip fracture patients in a single University Teaching Hospital. **Methods:** The HIPE dataset of fragility fractures occurring in GUH between 2014 and 2015 were analysed and cross referenced with hospital laboratory system and public databases. The resultant data categorized patients by age, gender and DM status. Comparisons were conducted evaluating post-operative length of stay (PLOS) and

mortality rates.

**Results:** A database of 440 individuals was created including 319 females and 121 males, with a mean age of 82 (range, 65–102) years. The PLOS was comparable in all groups with the age of the patient being the primary influencing factor. An extended PLOS correlated with a decreased chance of long term survival following fracture repair. A trend toward increased occurrence of sub-trochanteric fractures was observed in diabetics with fewer periprosthetic and intertrochanteric fractures in the same cohort. Diabetic patients had a significant increase in post-operative mortality at 2 years compared to non-diabetics.

**Conclusions:** The presence of diabetes did not appear to directly impact a patient's PLOS following surgery or increase the need for a re-operation, but appears to influence the primary location of the fracture. This observation will support further investigation into the mechanical and biochemical changes occurring in the femur in individuals living with diabetes.

**Keywords:** Hip fracture surgery; diabetes; anatomical fracture location

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