Enhanced Recovery Program – Impact of ASA Grade on Length of Hospital Stay in Patients Undergoing Hip and Knee Arthroplasties

M. Ahmad1,2, M.N. Chaudhry3
1Shifa International Hospital, Islamabad, Pakistan
2ST1 (2019) Our Lady’s Hospital, Co. Meath, Ireland
3Consultant, Our Lady’s Hospital, Co. Meath, Ireland

Introduction: Total hip and knee arthroplasties are two of the most quality of life enhancing orthopaedic procedures performed. Enhanced recovery (ER) programs have been implemented in orthopaedics surgeries to reduce the physiological and psychological stress of surgery. The American Society of Anaesthesiologists classification system is now the most widely used for measuring physical health status by hip and knee arthroplasty registries worldwide. The aim of the study is to determine whether the ASA score is a predictive of length of hospital stay in patients undergoing hip and knee replacements.

Method: Retrospective data is collected from a consecutive series of 441 charts and Irish National Orthopaedics Register for patients who underwent primary hip & knee replacements from January 1, 2018, to December 31, 2018, in our hospital. All these patients were assigned either ASA Class 2 or 3 in preoperative assessment.

Results: Patients with ASA 2 (319 patients of the total patient for the same period), average length of hospital stay was 4.8 days, whereas for patients with ASA 3 (122 patients of the total), length of hospital stay was 6.5 with mean difference between two groups was 1.7 days (95% confidence interval of this difference).

Conclusions: Patients with ASA 2 stayed shorter in the hospital compared to patients with ASA 3. Therefore, we recommend that preoperative patients’ optimization to downgrade a patient from an ASA 3 to ASA 2, but prospective analysis would be beneficial to examine the resource implications of such an initiative as well as patient outcomes with longer term follow up.