

### **1.03. Screening for Hyperglycaemia in Accordance with ‘Joint British Diabetes Societies for inpatient care’ Guidelines in Patients with Acute Asthma Exacerbations Treated with Systemic Corticosteroids in a Single Centre.**

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Systemic corticosteroids are employed for both acute and maintenance treatment of asthma, a chronic inflammatory disease. Rates of corticosteroid related hyperglycaemia and Diabetes Mellitus(DM) are estimated at 32.3% and 18.6% respectively<sup>1</sup>. The ‘Joint British Diabetes Societies for inpatient care’(JDBS) 2022 guidelines ‘Management of Hyperglycaemia and Steroid Therapy<sup>2</sup>’ provide a framework for managing steroid induced DM and hyperglycaemia. This is a retrospective cohort study assessing patients with acute asthma exacerbations, managed with corticosteroids in accordance with JDBS guidelines in the following three areas: 1) Pre-treatment assessment with HbA1C/fasting/random glucose 1 year prior to treatment and screening for risk factors for hyperglycaemia. 2) Inpatient capillary blood glucose(CBG) monitoring. 3) Screening 3 months post-treatment with HbA1C/fasting/random glucose. 40% had any of the 3 markers checked pre-treatment with 3 abnormal HbA1Cs indicating undiagnosed prediabetes. 30% had any of the 3 markers checked 3 months post-treatment.50% had daily capillary blood sugar checks during inpatient admission. 46.15% of high risk patients had CBG checked daily.

DM is associated with significant morbidity and mortality, with steroids contributing to both de novo and uncontrolled pre-existing hyperglycaemia. This study demonstrated suboptimal screening pre, during and post treatment with systemic corticosteroids which highlights the need to tackle compliance of inpatient management and outpatient follow-up.

1. Liu XX, Zhu XM, Miao Q, Ye HY, Zhang ZY, Li YM. “Hyperglycemia induced by glucocorticoids in nondiabetic patients: a meta-analysis”.(2014) *Ann Nutr Metab.* 65(4):324-332.
2. “Management of Hyperglycaemia and Steroid Therapy”. (2022) *Joint British Diabetes Societies for inpatient care*, Available at: <https://www.diabetes.org.uk/professionals/resources/shared-practice/inpatient-and-hospital-care/joint-british-diabetes-society-for-inpatient-care>

**Conflict of Interest: None to declare**