

Effectiveness of a Teaching Intervention on Improving the Management of Diabetes-Related Emergencies

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Background: Hyperosmolar Hyperglycaemic State (HHS) and Diabetes-related Ketoacidosis (DKA) are two diabetes-related emergencies needing acute management. Clear knowledge about diagnosing and managing these conditions is necessary to ensure that appropriate and timely care is provided.

Aim: To evaluate the effectiveness of a teaching intervention about DKA and HHS amongst junior doctors

Method: Junior doctors across a University Hospital were invited to an educational session on DKA and HHS. Attendees were asked to complete a pre- and post-teaching survey about identifying diagnostic and resolution criteria for DKA and HHS. The change in knowledge was analysed using the Independent-Samples Kruskal-Wallis Test in SPSS v27.0. Results are represented as median and interquartile ranges.

Results: 18 doctors completed both pre- and post-teaching surveys. There was a significant improvement for correctly identifying diagnostic [median (IQR)- pre=3.0 (1.8, 4.0); post =4.0 (4.0, 4.0); p=0.012] and resolution [pre=1.0 (0, 1.0); post =2.0 (1.0, 2.0); p=.014] criteria for DKA. However, we did not notice similar improvement for HHS [Diagnosis: pre=3.0 (1.0, 5.0); post = 5.0 (3.5, 6.0); p=0.089 , Resolution: [pre=1.0 (0.75, 2.0); post =1.0 (0, 2.0); p=0.054]

Conclusion: Compared to DKA, the improvement in knowledge post teaching was lower for HHS, highlighting the need for further interventions to improve HHS management amongst junior doctors. Further studies are currently underway to measure long term knowledge retention and impact on clinical care.