

Do we need to admit diabetic pregnant women when they receive steroids?!

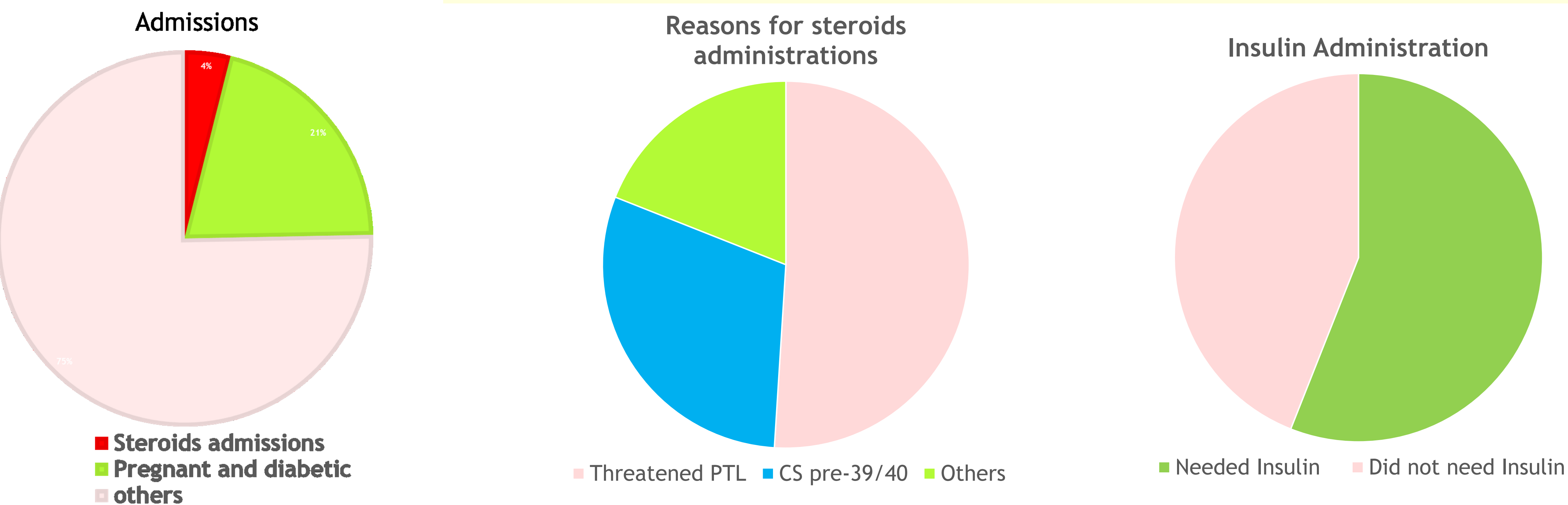
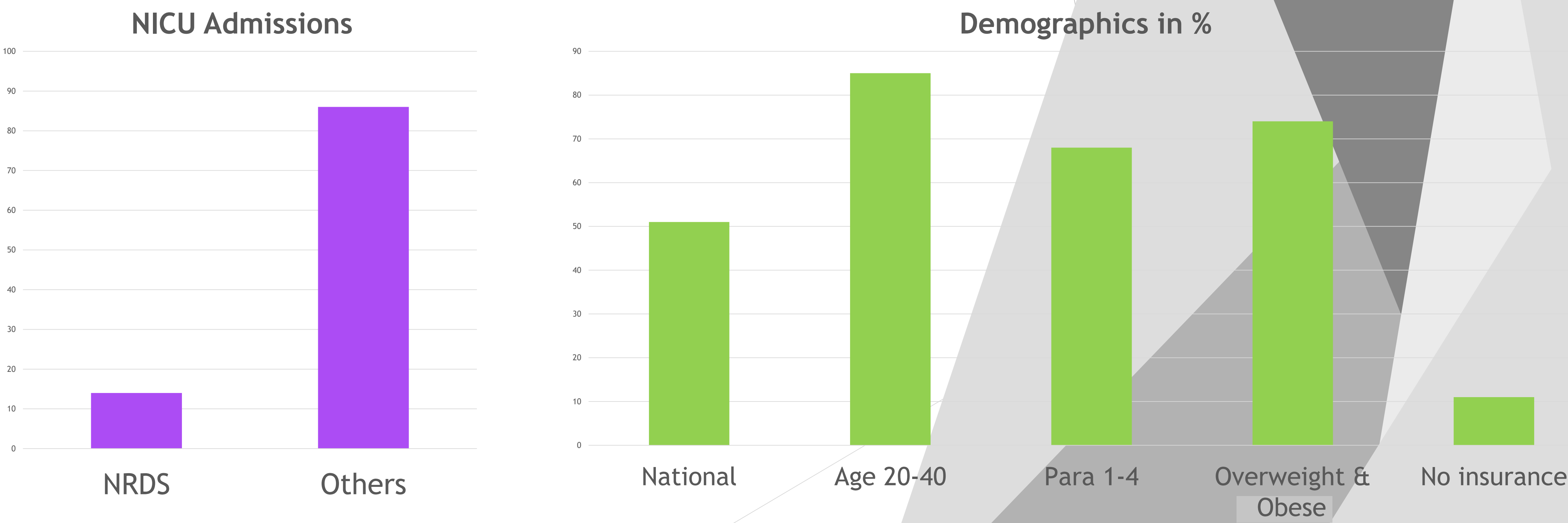
Dr Shahad Mahmoud Hussein Mahmoud^{1,2}, Dr Mays Mualla¹, Dr Iman Gaafar Younis¹, Dr Reem Mohamed Mohyeldin¹, Dr Muhieddine Abdul Fatah Seoud¹
¹Shaikh Shakhbout Medical City, Abu Dhabi, UAE. ²Khalifa University, Abu Dhabi, UA

Objectives: To study the load of admissions of pregnant diabetic women admitted for receiving betamethasone to decrease the risk of Neonatal Respiratory Distress Syndrome (NRDS); and the effect of betamethasone on maternal blood sugar, and the demand for insulin administration; to review the characteristics of same population, and neonatal outcomes in terms of Neonatal Intensive Care Unit (NICU) admissions and NRDS.

Design: Retrospective study of records of diabetic pregnant women admitted at Shaikh Shakhbout Medical City (SSMC), UAE, for receiving betamethasone, January 2020 to January 2021.

Method: The percentage of diabetic mothers admitted for betamethasone administration is calculated from our total obstetrics and gynaecology (obgyn) admissions. Records of 104 pregnant women with gestational diabetes mellitus (GDM) admitted for receiving betamethasone, were included, DM 1 or 2, were excluded. Insulin is administered according to our protocol sliding scale. Demographic characteristics, indication for betamethasone, length of stay (LOS) and Neonatal Outcome in terms of NICU admissions and NRDS, are described.

Results: The total number of obgyn admissions in the study period was 2,536. Pregnant diabetic admissions were 548 (21.6%); and those admitted for betamethasone administration were 104 (4.1% of all admissions). Betamethasone was mostly administered for threatened pre-term-labour (50, 48%) or caesarean section pre-39 weeks (31, 30%), plus others. 77 women (74%) had increasing blood sugars and required insulin administration. Half of those requiring insulin (50%), were either diet controlled or on oral medication. LOS ranged between 1-12 days. Highest blood sugars, needing insulin administration occurred in the first 5 days (59 patients, 56.3%, needed insulin). LOS more than 5 days was mostly due to added factors such as fetal surveillance, less than 1-2 days could be due to patients’ self-discharging. 45 babies were admitted to NICU, but only 15 (14%) for NRDS. Most women were aged 20-40 (85.5%), para 1-4 (68%), overweight and obese (74%), almost half were national (51%), and only 10.5% had no insurance. Most insurance covers inpatient but not outpatient blood glucose monitoring.



Conclusions: Betamethasone-induced-hyperglycemia requiring insulin occurred in about 3/4 of admitted pregnant-diabetics, most demand was in the first 5 days of admission, and in GDM patients on diet or oral medication. Alternatives to hospital stay, include patient education, outpatient blood sugar monitoring and insulin administration. Challenges include patient compliance, and insurance coverage. Betamethasone can induce high maternal blood sugars. Research and evidence based guidance are needed to explore out-patient administration to allow safe modification of practice.