

Prevalence of Gestational Diabetes Mellitus in Western Australia from 2015 until 2020

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Abstract : Gestational diabetes mellitus (GDM) is the subtype of diabetes that has been rapidly increasing in numbers in Australia. The annual percentage of GDM has increased more than 50 percent in the last decade. According to Diabetes Australia, more than five hundred thousand women in Australia will be diagnosed with GDM. Globally, the prevalence of GDM ranges from single-digit to more than 45%. The prevalence of GDM has increased significantly last five years after the introduction of new diagnostic criteria. Hence, we have decided to investigate the trend in GDM prevalence in a tertiary maternity unit at Western Australia and compare it to national prevalence. Data is derived from STORK Perinatal Database which has been used by Maternity services in Western Australia to populate information on pregnancy and labour. We have selected data from 2015 until 2020, which includes 17508 women. Among 17508 women, 3850 women were diagnosed with GDM. In 2015, we had a total of 2213 deliveries with 345 of them were complicated by GDM. GDM prevalence was 15.6% compared to the Australian national prevalence of 12%. In 2016, total deliveries increased to 2759 with 590 of were with GDM. GDM prevalence was 21.4% compared to the Australian national prevalence of 12%. In 2017, total deliveries further increased to 3049 with 675 with GDM. GDM prevalence was 22.1%, with an Australian national prevalence of 13%. In 2018, total deliveries continued to increase, with numbers reaching 3231 with 749 with GDM. GDM prevalence was 23.2%, with an Australian National prevalence of 14%. In 2019, total deliveries were 3110, with 712 complicated by GDM. GDM prevalence was 22.9%, with Australian national prevalence 14%. In 2020, total deliveries 3146 with 819 complicated by GDM. GDM prevalence increased to 26% and we were unable to compare this to national standard as national prevalence has not been released. Among 3890 women with GDM, 2482 (64%) of them required insulin. Apart from that, a total 1642(42%) from the GDM group were delivered via the Caesarean section. 2121 (55%) women with GDM required induction of labour. Overall, we demonstrated an increase in the prevalence of GDM in our unit from 2015 until 2020. Our prevalence is also higher compared to national prevalence. This could be contributed by the increasing number of obesity and in addition, our unit accepts referrals of women with a body mass index (BMI) of more than 40. Hence, further studies are required to look at other risk factors like ethnicity, socio-economic status, health literacy and age, which could contribute to this high prevalence.

Keywords : gestational diabetes mellitus, prevalence, Western Australia, Australia

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