

# A case of severe insulin resistance in a pregnancy with type-2 diabetes mellitus

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## Introduction

Type-2 diabetes mellitus (T2DM) is a disease of social disadvantage, with a disproportionate burden on Indigenous Australians.<sup>1,2</sup> Poorly controlled T2DM poses significant risks to women and fetuses.<sup>2</sup>

## Objective

To present a case of severe insulin resistance in pregnancy requiring **over 500 units of insulin.**

## Case Profile

- 22 year old G1P0 female
- Indigenous Australian
- T2DM diagnosed at 15 years of age
- Starting HbA1c of 9.7%
- Body mass index of 25
- Strong family history of T2DM

## Case Progress

- 13+2: Metformin XR 2g daily, NovoMix 40U mane and 46U nocte
- 24+2: Admission for blood glucose level (BGL) stabilisation due to poor adherence
- 35+0: Metformin XR 2g daily, Toujeo 330U nocte, NovoRapid 46U/66U/96U TDS with meals and NovoRapid PRN with snacks

## Case Outcome

HbA1c progress:

- 12+0: HbA1c 9.7%
- 29+1: HbA1c 7.2%
- 35+0: HbA1c 7.4%

US at 34+2: EFW 2427g, AC 50<sup>th</sup> centile, **AFI 5.6**, normal dopplers

Decision for an induction of labour at 35+0 due to BGL control and AFI <5<sup>th</sup> centile

Emergency caesarean section for failure to progress at 35+2 resulting in a liveborn male at 2752g

## Discussion and Conclusions

In the context of a worldwide T2DM epidemic, there has been an increase in diagnoses amongst young adults.<sup>3</sup> The epidemic has also seen a rise in pregnancies complicated by the effects of T2DM.<sup>4</sup> Further challenges with BSL management are arising because of severe insulin resistance, especially amongst Indigenous Australians.<sup>5,6</sup> Ultimately, the observation of such severe insulin resistance in Indigenous Australians requires an individualised approach.<sup>1,2</sup>

### References

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### Disclaimers

Nil

