# Serum urate in PET Delivery
## A friend or furphy?

## Introduction:

Pre-eclampsia (PET) can be a complex condition which has major maternal and fetal implications, particularly on timing of delivery. PET diagnosis is based on sustained hypertension with evidence of organ dysfunction after 20-week gestation, usually an elevated urine protein: creatinine ratio, elevated liver transaminases or thrombocytopenia. Urate, a substrate of purine metabolism, is considered a biomarker for early kidney damage and correlates to PET diagnosis, severity and fetal/neonatal outcomes.

## Methods:

A retrospective audit of women who had an induction of labour at term (>37+0 weeks gestation) for PET in the year of 2020 at a tertiary Queensland hospital was conducted. The primary outcome was measured serum urate levels at time of induction in patients who were taking anti-hypertensive medication at the time.

## Results:

111 patients had induction of labour for hypertension; 40 (36%) with pre-eclampsia, 65 (58.5%) with gestational hypertension and 6 (5.5%) with essential hypertension. The average urate level amongst women with PET was 0.38mmol/l and 0.33mmol/l in gestational hypertension (p=0.081). Of the 40 patients with PET, 28 were medicated (70%) and of the 65 patients with gestational hypertension, 21 were medicated (32%).
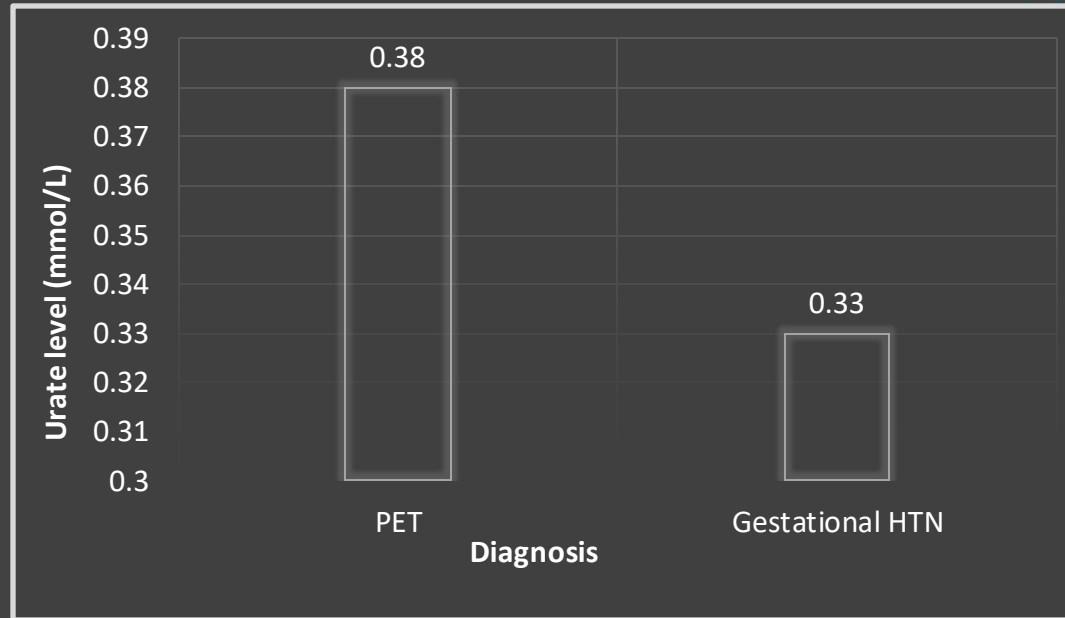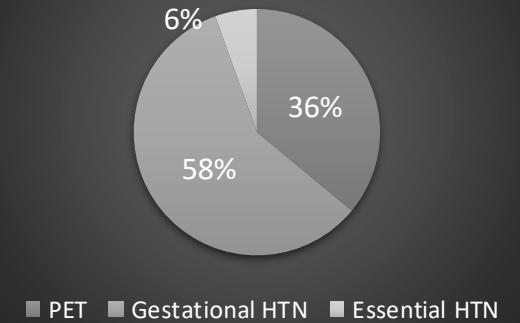


Figure 1: Average urate level at time of induction of labour



Figure 2: Rationale for induction of labour

## Conclusion:

Urate is on average higher in women with pre-eclampsia though not statistically significant. As most patients with pre-eclampsia are taking anti-hypertensive medication, this doesn't statistically reduce the urate level. This data shows that urate generally is elevated in patient with diagnosed pre-eclampsia, however, shouldn't be used as a diagnostic marker alone.

## Dr Thomas Paxton-Hall

**Contact:** Thomas.Paxton-hall@health.qld.gov.au

**Department of Obstetrics & Gynaecology, Gold Coast University Hospital, Gold Coast, Australia**

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