



Bwrdd Iechyd Prifysgol
Betsi Cadwaladr
University Health Board

Decision-making using Placental Growth Factor (PLGF) in Preeclampsia - Pilot study in Wales

Ashwin Ahuja, O&G Senior Clinical Fellow, Wrexham Maelor Hospital; Lynda Verghese, O&G Consultant, Wrexham Maelor Hospital

Objective : To test the clinical utility of PLGF point of care blood test in the management of preeclampsia

Methodology : Prospective Audit of 34 patients undergoing the PLGF Triage testing

INDICATIONS

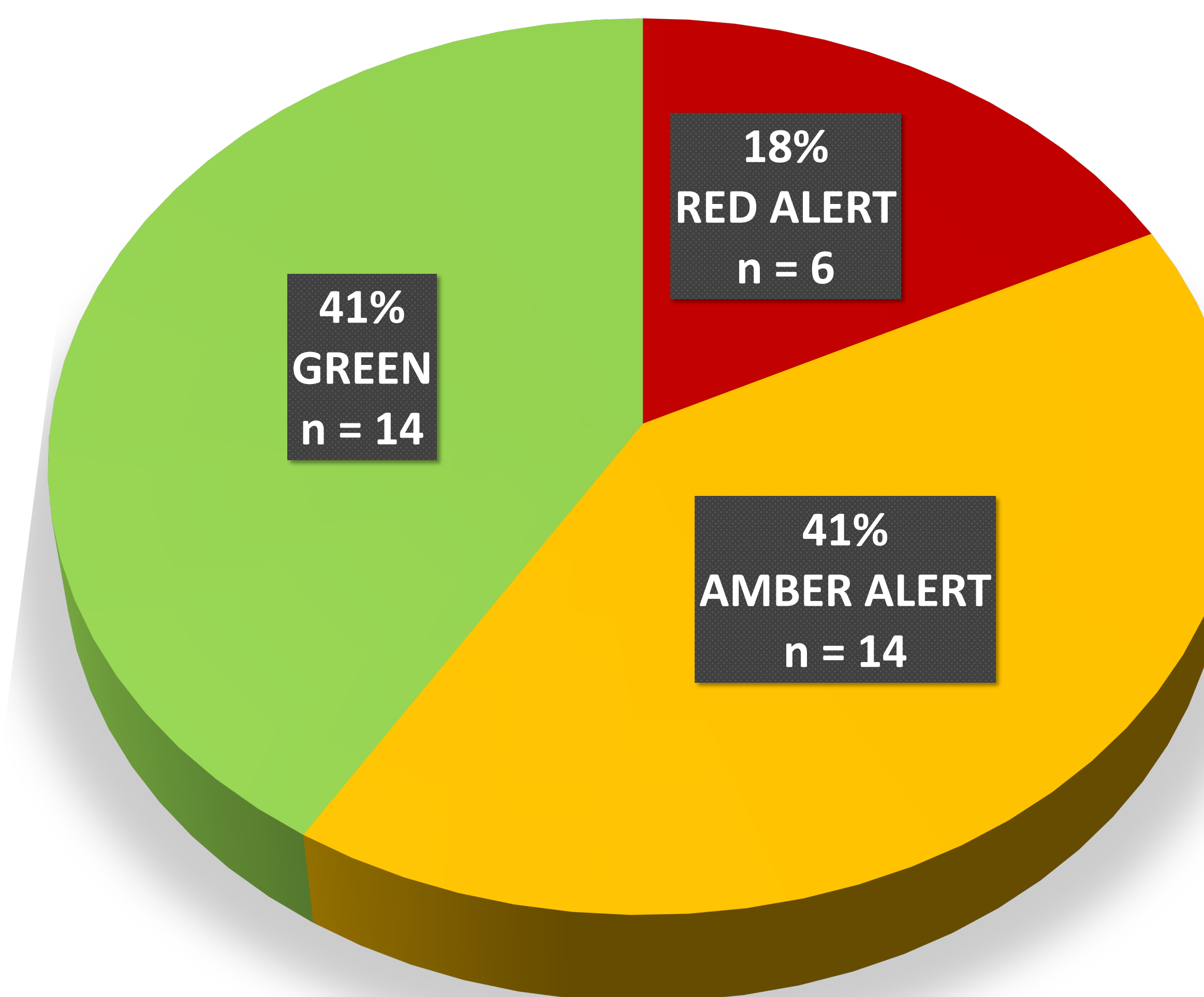
Presentation **between 20 – 34⁺⁶ weeks**

- Isolated new hypertension (>140/90mm Hg)
- Borderline proteinuria (30-50mg/mmol)
- Worsening chronic hypertension/proteinuria in preexisting renal disease/diabetes
- Adjunct to cases with preeclampsia to decide who is likely to need delivery within next two weeks

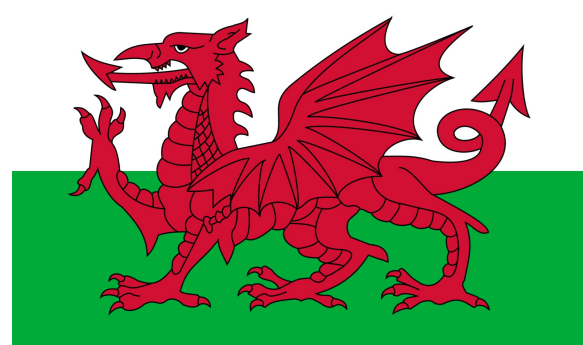
RISK STRATIFICATION & OUTCOMES

PIGF ≥100 NORMAL	PIGF 12-99 LOW	PIGF <12 VERY LOW
41% of the patient cohort (14 patients) had a <u>normal</u> PLGF.	41% of the patient cohort (14 patients) had <u>low</u> PLGF.	18% of the patient cohort (6 patients) had a <u>very low</u> PLGF.
Test negative – Normal. Pre-eclampsia ruled out. 98% of the patients will NOT need delivery due to pre-eclampsia within 14 days. <u>Median time to delivery (MTD) : 62 days</u> All had good outcomes (despite risk factors for PET), and 70% were managed on outpatient basis.	Test positive – Abnormal. Pre-eclampsia not ruled out. Increased risk for preterm delivery. 95-96% of patients will need delivery in 2 weeks. <u>Median time to delivery (MTD) : 23 days</u> All patients had good outcomes. We could carry patients to term with increased surveillance.	Test positive – Highly Abnormal. Assess as Pre-eclampsia. Highest risk for preterm delivery and FGR. 94% of women presenting before 35 weeks will give birth preterm. <u>Median time to delivery (MTD) : 9 days</u> All 6 patients were correctly risk stratified and had to be delivered the same week . 2 - severe SGA, 2 – HELLP; the rest - severe PET needing MgSO4.

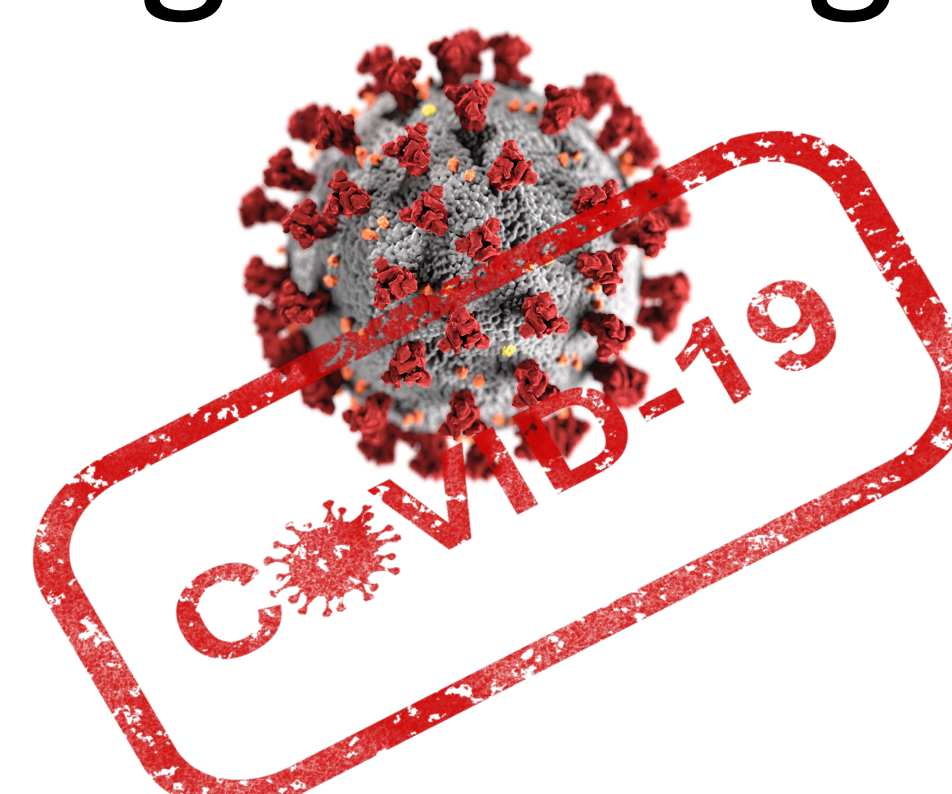
OUTCOMES OF THE PLGF TRIAGE TESTING



OUR VISION

- Our 'BEVAN EXEMPLAR PROJECT'
- Introduce Wales-wide PLGF Testing. 
- Recruitment site for PARROT 2 Trial
- Re-audit and present in Dec. 2022

BENEFITS

- Reduces unnecessary inpatient admissions in COVID – 19 pandemic 
- Saves NHS bed costs, SCBU costs, medicolegal costs 
- Saves greenhouse gas emissions eq. to 3 million car miles saved or 37 cu. mt less water used 
- Allay Maternal Anxiety, save on childcare costs, travel costs. 
- Assurance to clinicians to continue the pregnancy, delay induction and prevent stillbirths & iatrogenic preterm deliveries
- Efficient use of midwifery staffing 