



The impact of enhanced universal pre-eclampsia screening on hospital costs associated with the care of women with early onset pre-eclampsia



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18 → 12

cases of early-onset pre-eclampsia
(2 years before vs 2 years after)

0.23% → 0.17%

rate of pre-eclampsia delivered
before 34 weeks (P = 0.35)

£172,677

total saving in maternity and
neonatal costs over 2 years

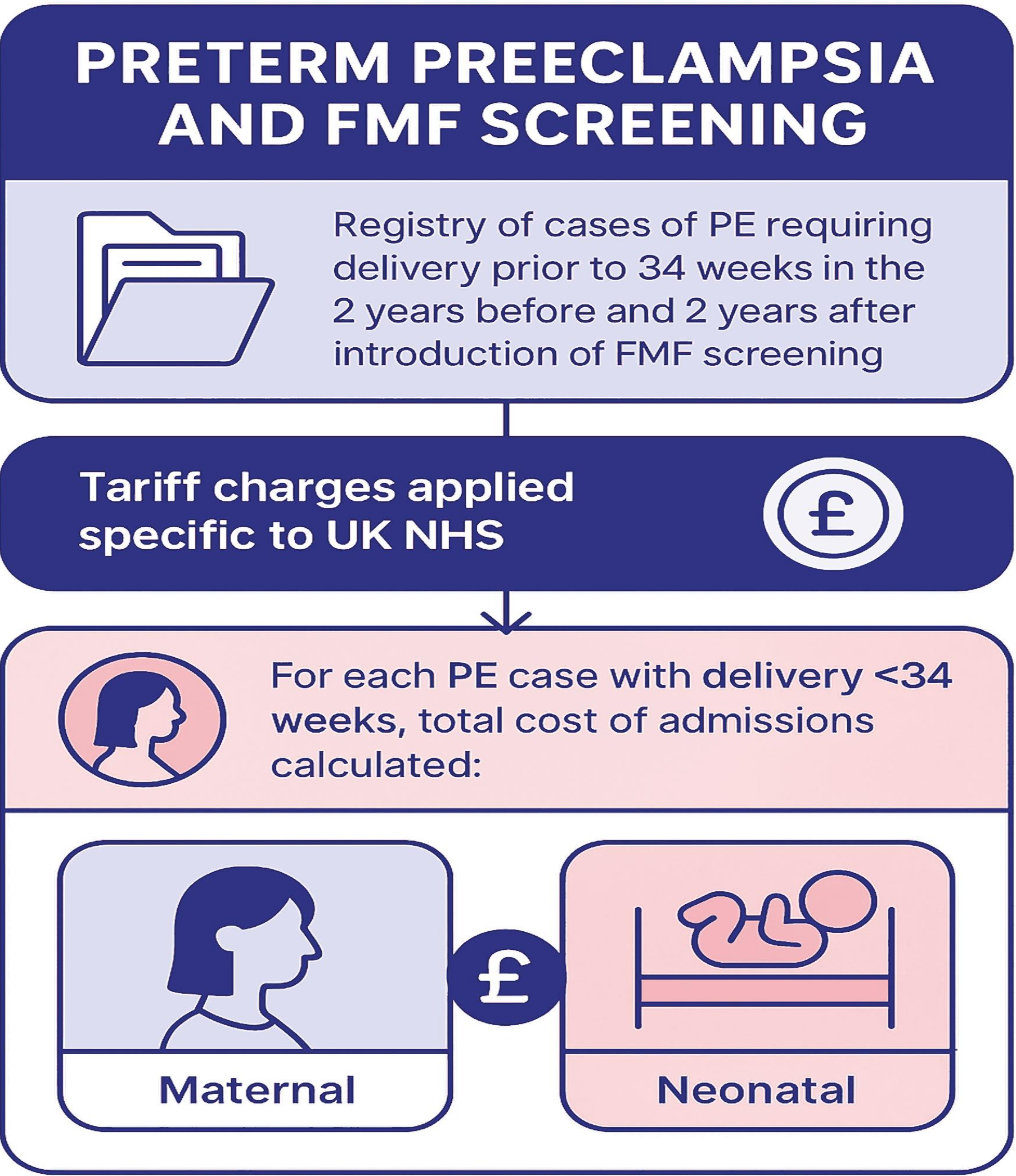
£86,339

saving per year at current
screening volumes

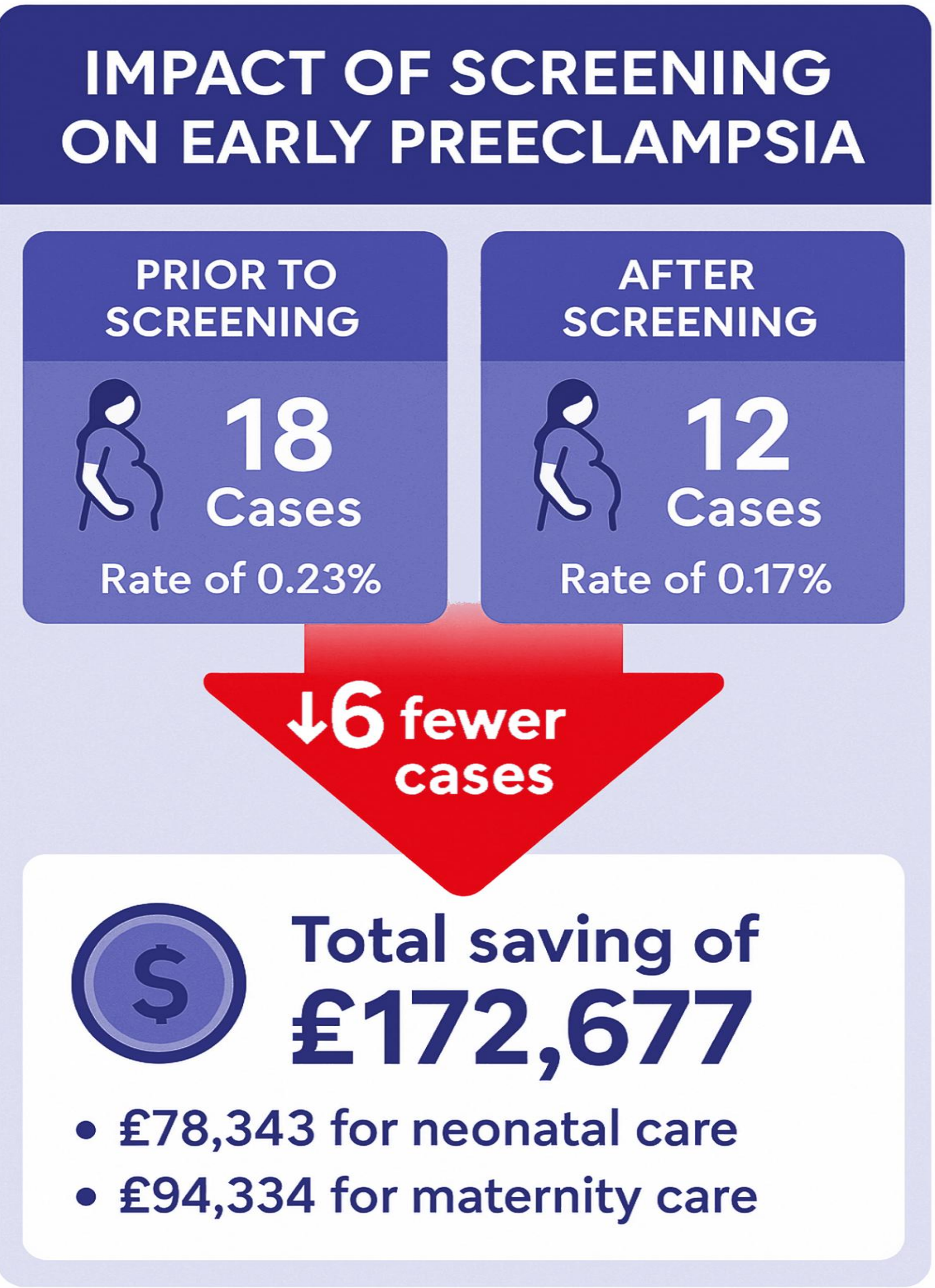
Objectives

- Pre-eclampsia (PE) is a leading cause of iatrogenic prematurity.
- Randomised controlled trials have demonstrated a significant reduction in rates of PE when aspirin is prescribed to high-risk patients.
- We have implemented screening for PE using the Fetal Medicine Foundation (FMF) algorithm since January 2022.
- It was hypothesised that reduced cases of PE with delivery before 34 weeks would offset the cost of screening.

Methods



Results



Conclusions

- The universal pre-eclampsia screening programme is economically viable due to savings in the cost of maternal and neonatal admissions.

	Comparison of Neonatal care costs		
	Prior to screening	After screening	Difference
Cost of neonatal care	292,138	213795	78343
Average cost per case	16229	17815	
Median length of admission	23 (17.5-44.75)	29.5 (19.5-48)	P =0.75

	Comparison of Maternal care costs		
	Prior to screening	After screening	Difference
Cost of maternity care	245635	151301	94334
Average cost per case	13646	12608	
Median length of admission	9 (6.25-14)	7.5(5.75-11)	P =0.51

References:
1. Yang M, Campbell H, Pillay T, Elaine MB, Modi N, Rivero-Arias O. Neonatal health care costs of very preterm babies in England: a retrospective analysis of a national birth cohort. 2023;7(1)
2. Rolnik DL, Wright D, Poon LC, O’Gorman N, Syngelaki A, de Paco Matalana C, et al. Aspirin versus Placebo in Pregnancies at High Risk for Preterm Preeclampsia. 2017;377(7): 613–622.
3. Tan MY, Koutoulas L, Wright D, Nicolaides KH, Poon LCY. Protocol for the prospective validation study: ‘Screening programme for pre-eclampsia’ (SPREE). Wiley; 2017. p. 175.