Appendix 1. Established Threshold Models for Minimal Human Chorionic Gonadotropin Rise From Initial Presentation in Viable Intrauterine Pregnancies

Interval (days)	Relative increase in hCG concentration from baseline				
	Linear Model[8]	Random-Effects Linear Model[7] (initial hCG, mIU/mL)			Minimal Rise Model[9]
		<1500	1500-3000	>3000	
1	24%	23%	19%	16%	15%
2	53%	49%	40%	33%	30%
3	88%	78%	62%	50%	50%
4	133%	109%	85%	67%	75%
5	186%	143%	107%	82%	100%
6	254%	177%	129%	97%	130%
7	338%	212%	150%	109%	166%

hCG, human chorionic gonadotropin

The "Linear Model[8]" uses a log linear parametric model to describe the minimal hCG rise to include 99% of viable gestations. The "Random-Effects Linear Model[7]" also uses a log linear parametric model with a random effect to allow for inclusion of patients without a known last menstrual period (LMP) and incorporates a different rate of rise based on initial hCG values of <1500 mIU/mL, 1500-3000 mIU/mL, or >3000 mIU/mL. The "Minimal Rise Model[9]" reflects the hCG rise thresholds used in the ACT or NOT trial and also uses a linear rise model.

hCG, human chorionic gonadotropin; IUP, intrauterine pregnancy

Appendix 2.

All IUPs were still correctly classified at 4 days (0/120; 0% [95% CI 0-3.0]) and 6 days (0/140; 0% [95% CI 0-2.6]). Of those with EP, only 15.2% (7/46; 95% CI 6.3-28.7) were incorrectly classified on day 4 and none (0/47; 0% [95% CI 0-7.5]) on day 6. Of those with EPL, only 3.8% (16/420; 95% CI 2.2-6.1) were incorrectly classified on day 4 and none on day 6 (0/429; 0% [95% CI 0-0.9]). Comparison to established models demonstrated the same significant differences described above with the addition of the 4-day misclassification rate for EPLs being significantly different from all three established models (p<0.001 for all three models).