

### COAGULATION PROFILE IN VERY PREMATURE INFANTS

E. Neary<sup>1</sup>, I. Okafor<sup>1</sup>, F. Alawaysh<sup>1</sup>, C. Kirkham<sup>1</sup>, K. Sheehan<sup>1</sup>, E. Molloy<sup>2</sup>, D. Corcoran<sup>1</sup>, M. Cotter<sup>1</sup>, N. McCallion<sup>1,3</sup>

<sup>1</sup>Department of Paediatrics, Rotunda Hospital, <sup>2</sup>Department of Paediatrics, National Maternity Hospital, Holles Street, <sup>3</sup>Department of Paediatrics, RCSI, Dublin, Ireland

**Background:** Premature infants are predisposed to coagulopathy, which may increase intraventricular haemorrhage (IVH). Coagulation values vary by gestation in utero and are different to term values. Limited data exists in literature for coagulation parameters < 26/40 GA. Conservative estimates increase unnecessary blood products, while untreated coagulopathy could increase IVH.

**Aim:** Describe distribution of day 1 PT, APTT and Fibrinogen for infants < 26/40 GA.

**Methods:** Retrospective review of infants (< /= 26/40 GA) between 1.1.2004-31.12.2010. Clotting studies performed on < 26/40 GA in our hospital on day 1 of life. Values obtained from computerised laboratory system. Descriptive statistics performed.

**Results:** Clotting values summarised in Table 1. Cases were excluded if value exceeded laboratory measurement capability (n=6) or not obtained on day 1.

Total=191	PT (Prothrombin Time)	APTT (Activated partial thromboplastin time)	Fibrinogen
Number of infants less than 26 weeks gestation	144	136	80
Median	21.5	75.2	1.9
*Range	13.3-39	34.9-191.6	0.5-4.8
2.5th Centile	14.4	40.5	0.7
75th Centile	36.7	158.5	4.8
Number of pathological values as per laboratory reference range**	140 (97.2%)	124 (91.1%)	10 (12.5%)

[Day 1 Clotting Studies

\*Narrowing of range between 23-26 /40 GA

\*\*Laboratory reference range: PT 13.0+/-1.43, APTT 42.9+/- 5.8, FBG 2.83+/-0.58

**Conclusions:** Term reference ranges differ from coagulation values for < 26/40 GA. This large cohort provides normative values for interpretation of day 1 coagulation values. Further studies required to determine whether treatment of raised coagulation values is of therapeutic benefit.