

## THROMBOCYTOPENIA

### Supporting information

**This guideline has been prepared with reference to the following:**

New HV, Berryman J, Bolton-Maggs PH et al. Guidelines on transfusion for fetuses, neonates and older children. *Br J Haematol.* 2016;175:784-828

<http://onlinelibrary.wiley.com/doi/10.1111/bjh.14233/full>

#### **Severe thrombocytopenia is uncommon?**

Although mild thrombocytopenia is common (20% - 35% of all babies admitted to the neonatal intensive care unit), only 2.5% - 5% of these will go on to develop the severe form (Ferrer-Marin, 2010).

A descriptive, population-based UK national study (Knight, 2011) identified 173 cases of severe fetomaternal alloimmune thrombocytopenia (FMAIT) between October 2006 and September 2008. An extra 20 cases were estimated from capture-recapture analysis, giving an estimated incidence of clinically detected FMAIT of 12.4 cases per 100000 total births (95% CI 10.7 to 14.3). Fifty-two cases (30%) were known at the start of pregnancy; 120 (70%) were unknown (n=115) or unrecognized (n=5). Unknown cases were more likely to experience a haemorrhagic complication (67% vs.5%) (P<0.001) and more likely to have an intracranial haemorrhage (20% vs. 4%) (P=0.014) than known cases receiving antenatal management.

A systematic review by Kamphuis et al. (2014) of 6 prospective studies found 59,425 newborns screened for severe thrombocytopenia, of which 89 (0.15%) tested positive.

Ferrer-Marin F, Liu ZJ, Gutti R, et al. Neonatal thrombocytopenia and megakaryocytopoiesis. *Semin Hematol* 2010;47:281-8

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2934854/>

Kamphuis M, Paridaans N, Porcelijn L et al. Incidence and consequences of neonatal alloimmune thrombocytopenia: a systematic review. *Pediatrics* 2014, 133:715-721

<http://pediatrics.aappublications.org/content/early/2014/02/25/peds.2013-3320.full.pdf+html>

Knight M, Pierce M, Allen D, et al. The incidence and outcomes of fetomaternal alloimmune thrombocytopenia: a UK national study using three data sources. *Br J Haematol* 2011;152:460-8

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2141.2010.08540.x/full>

**Evidence Level: III**

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