

## BCSH Anti-D Guidelines 2014 - Amendment 4.8.14

### 1) Anti D prophylaxis in overweight women

Following publication of the BCSH 2014 guideline, the Summary of Product Characteristics (SmPC) for Rhophylac was revised by the manufacturer and states that intravenous (IV) administration of Rhophylac is recommended in pregnant women with a body mass index (BMI)  $\geq 30$  kg/m<sup>2</sup>. The BCSH Transfusion Task Force has expressed concerns about the lack of published evidence to support this revised SmPC which states that 'lack of efficacy' or 'reduced efficacy' has been reported in a 'small group' of 'overweight patients'. The manufacturers have not provided any information as to the number of case reports or specific details as to the site of intramuscular (IM) administration, i.e. deltoid vs. gluteal in the case report(s) in support of their revised recommendation.

We are concerned about the lack of consultation with healthcare professionals on the likely impact of such a change in practice. It is estimated that approximately 15% of the UK antenatal population has a BMI  $\geq 30$  in early pregnancy (Heslehurst 2010). The recommendation that these women should receive rhophylac by intravenous route, is likely to significantly increase the workload of already busy antenatal clinics and introduce greater complexity in decision making that may further increase the risk of errors with the administration of anti-D Ig as already highlighted by the UK Serious Hazards of Transfusion (SHOT) Haemovigilance Scheme ([www.shotuk.org](http://www.shotuk.org)).

The SmPC does state that 'Consideration should also be given to dose and dose schedules for human anti-D immunoglobulin for intramuscular and intravenous use recommended in other official guidance.'

The current BCSH 2014 guideline states, "There is some evidence from pharmacokinetic studies (Bichler *et al.*, 2003; Woelfer *et al.*, 2004) that high Body Mass Index (BMI) is associated with lower serum peak levels of anti-D Ig following IM administration. However, it is unknown whether this observation translates to a higher sensitisation rate in overweight women. On the basis of the available evidence, a firm recommendation cannot be made regarding a higher dose or IV route of administration in women with high BMI".

We strongly recommend further research in this area. We also recommend ongoing vigilance with further study of causes of D sensitisation as currently being undertaken by SHOT .

We understand from the MHRA (Medicines and Healthcare Products Regulatory Agency in the UK) that Rhophylac is licensed in the UK by way of a Mutual Recognition Procedure with Germany as the Reference Member State. The variation to amend the licence of Rhophylac was submitted to the Reference Member State and peer-reviewed by other EU member states. This centralised process does not seem to allow concerns expressed by professionals in the UK to steer the guidance within the SmPC.

The BCSH Transfusion Task Force, in agreement with representatives from the RCOG, recommends that hospitals undertake a local risk assessment which should take into account workload in relation to the local antenatal population, the healthcare personnel involved in administering anti-D Ig prophylaxis and the risk of

delayed/missed administration with introduction of change in practice as recommended by the revised Rhophylac SmPC. This needs collaboration between all clinical teams involved including obstetricians, midwives and haematologists with input from the hospital clinical governance team.

## **2) Anti D prophylaxis following Intrauterine Death (IUD) – clarification**

The current BCSH anti-D 2014 guidelines (Qureshi et al 2014), state that 'It should be noted that the diagnosis of IUD is the sensitising event rather than delivery and hence anti-D Ig should be administered immediately following the diagnosis of IUD.'

The BCSH Transfusion Task Force would like to clarify that in addition to anti-D Ig prophylaxis administered at diagnosis of an IUD, a further dose of anti-D Ig should be administered after delivery, as there could be variable and significant delay between the diagnosis of IUD and subsequent delivery.

As with any potentially sensitising event at  $\geq 20$  weeks gestation, FMH testing should be undertaken to determine if additional dose(s) of anti-D Ig are required.

### References

*Bichler, J., Schöndorfer, G., Pabst, G. & Andresen, I. (2003) Pharmacokinetics of anti-D IgG in pregnant Rh D negative women. BJOG: An International Journal of Obstetrics and Gynaecology, 110, 39–45.*

*Heslehurst N, Rankin J, Wilkinson JR et al. (2010) A nationally representative study of maternal obesity in England, UK: trends in incidence and demographic inequalities in 619 323 births, 1989–2007. International Journal of Obesity 34: 420–8*

*Qureshi H, Massey E, Kirwan D, Davies T, Robson S, White J, Jones J, Allard S BCSH guideline for the use of anti-D immunoglobulin for the prevention of haemolytic disease of the fetus and newborn Transfusion Medicine, 2014, 24, 8–20*

*SHOT Annual report 2012 [www.shotuk.org](http://www.shotuk.org)*

*Woelfer, B., Schuchter, K., Janisiw, M., Hafner, E., Philipp, K. & Panzer, S. (2004) Post delivery levels of anti-D IgG prophylaxis in D – mothers depend on maternal body weight. Transfusion, 44, 512–517.*