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2019

Study Title

A comparison of anti-D titers using gel and tube technologies

Study Description

Historically, prenatal tilers have been measured using a saline indirect antiglobulin {AHG) test, which is performed in a test tube (tube testing) Limitations or this test include its manual nature, inter-observer variability, different commercial reagent RBCs that give quantifiably different results, and varying policies for interpreting results, Gel based testing is an alternative method that is more precise and can be automated using analyzers available from various manufacturers. Studies comparing gel and tube prenatal titers have provided variable results: most have shown gel testing to be more sensitive than tube testing by a factor or 1-2 titer dilutions, bul some studies have shown gel to be even more sensitive (2-4 titer dilutions greater) and one study found tube to be more sensitive than gel. A systematic review of the literature and meta-analysis (manuscript in preparation) has shown that most of these differences in study resulls can be ascribed lo the dirferent tube methodologies used by each lab. Unfortunately, the result of this confusion means that a critical titer threshold has not been delined for gel methodology, precluding its use clinically. For gel to be widely accepted as a replacement for tube testing, the correlation between gel and tube needs to be rigorously characterized. To improve care for pregnant women alloimmunized to the D antigen we are planning a large, multicenter study in which tube and gel testing will be performed in parallel following a standardized protocol. This study will allow for a definitive relationship to be defined between tube and gel testing results and should allow labs to adopt gel testing for 1heir patients

Study Status

Active

Publication Number

Teams

CC

Study Leaders

Cohn