The aim of this study was to evaluate and report the strengths and weaknesses of introducing CTG-ST analysis during labour in a teaching hospital set up. St George’s Hospital in London has over 4,000 deliveries per year and is a regional tertiary referral centre for perinatal medicine. STAN was first introduced in June 2002, and 1,502 women out of 14,890 were monitored until December 31, 2005. In 56% of the cases, umbilical cord blood gases were available. During the study period there were 35 cases (0.27%) with neonatal encephalopathy, out of which 14 were monitored with STAN. The retrospective analysis of these 14 cases highlights the continuing problem of poor CTG interpretation, delayed action and non-adherence to guidelines. The authors conclude that better training in CTG and ST analysis, assessment and supervision of users may help improve outcome.