Respiratory distress syndrome (RDS) is one of the major global healthcare problems, and continues to effect newborns despite the improvements in diagnosis and treatments of the disease.

This study aimed to investigate if the pregnancy associated plasma Protein-A (PAPP-A) multiples of median (MoM) levels could be used as a marker for the early prediction of RDS. The present study was designed with data gathered from 1773 patients who were referred to our institution for first trimester fetal chromosomal anomaly screening. First trimester PAPP-A MoM values and postnatal RDS occurrences in these pregnancies were retrospectively analysed. Of the 1773 neonates that were included in the study. In the group of neonates at or beyond 37 weeks, the cut-off value for RDS prediction was determined as 1.02. For this cut-off value, sensitivity was 72.41% and specificity was 91.84%. The area under curve (AUC) was determined to be statistically significant (p<.01).

In order to reduce RDS related neonatal morbidity and mortality, pregnancies with PAPP-A MoM values greater than 1.02 at the first trimester fetal anomaly screening should be more closely followed up and a higher rate of suspicion should be kept for RDS occurrence.