First trimester combined screening for fetal aneuploidies enhanced with additional ultrasound markers: an 8-year prospective study.

Dragos Nemescu [1], Adina Bratie [1], Alexandra Mihaila [1], Adina Tanase [1], Dan Navolan [2].


**Objective**
- to describe our screening population
- to audit the performance of first-trimester screening for Down syndrome, based on combined test enhanced with additional ultrasound markers, since its implementation

**Methods**
- prospective study from 2009 to 2016
- 1358 singleton fetuses, with CRL 45–84 mm
- aneuploidy risk calculated using NT, FHR, additional markers: nasal bone (NB), tricuspid flow (TR) and ductus venosus (DV), combined with maternal serum fβ-hCG and PAPP-A.

**Results**
- 87% of patients had an evaluation of all additional ultrasound markers (NB, TR, DV) and in 97% at least two markers were assessed, in any combination.
- 70.5% of patients were evaluated also through maternal serum biochemistry.
- the most common risk calculation used NT, FHR, all additional ultrasound markers, fβ-hCG and PAPP-A in 851 (62.7%) of cases.
- adjusted risk for T21 was >1:100 in 65 (4.8%) women.

**Conclusion**
Combined test enhanced with all additional ultrasound markers did not show a substantially improvement in T21 detection rate, compared to using only one of the additional markers.