

Publication

A new era in prenatal care: non-invasive prenatal testing in Switzerland

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 4378799**Author(s)** Manegold-Brauer, Gwendolin; Kang Bellin, Anjeung; Hahn, Sinuhe; De Geyter, Christian; Buechel, Johanna; Hoesli, Irene M.; Lapaire, Olav**Author(s) at UniBasel** [de Geyter, Christian M.H.R.](#) ; [Hahn, Sinuhe](#) ;**Year** 2014**Title** A new era in prenatal care: non-invasive prenatal testing in Switzerland**Journal** Swiss Medical Weekly**Volume** 144**Pages / Article-Number** w13915**Keywords** Adult; Amniocentesis/utilization; Cell-Free System; Chorionic Villi Sampling/utilization; Chromosome Disorders/*diagnosis; Chromosomes, Human, Pair 13; Chromosomes, Human, Pair 18; Down Syndrome/*diagnosis; Female; Genetic Counseling; Humans; *Maternal Serum Screening Tests; Pregnancy; Prenatal Diagnosis; Retrospective Studies; Risk Assessment; Sequence Analysis, DNA; Switzerland; Trisomy/*diagnosis

QUESTIONS UNDER STUDY: Prenatal care has been significantly influenced by the introduction of non-invasive prenatal testing (NIPT) for aneuploidies in 2012. The aim of this study was to describe the current impact of NIPT on prenatal care. METHODS: We performed a retrospective data analysis including all women with singleton pregnancies who presented for first trimester screening (FTS) between 1 October 2011 and 30 March 2013 and those seeking NIPT. According to the results of FTS the women were categorised into three risk groups: low risk for aneuploidy ($<1:300$), intermediate risk ($1:300-1:50$) and high risk ($>1:50$). They were counselled about the available options for invasive prenatal testing (IPT) and NIPT available at the time of FTS. The nine months before and after the introduction of NIPT were evaluated regarding further testing after FTS. RESULTS: In total, 951 women were included: 505 examinations (group 1) were carried out before NIPT became available, 446 (group 2) thereafter. In group 2, 9.0% (40/446) had NIPT. Here, 60.0% (24/40) had a low risk according to FTS. In group 2 there was an increase of 3.6% of additional prenatal tests after FTS. The greatest increase was noted in the intermediate-risk category (10.7%). The number of invasive prenatal tests decreased by 67.4%. CONCLUSIONS: We observed a notable increase in prenatal testing after the implementation of NIPT. NIPT is an additional test for women who need more reassurance. Since the options for pregnant women become more complex and the costs of NIPT are high, prenatal counselling has become more challenging.

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