

CA Prenatal Screening Program

Updates and Reminders:

- Qualified Medical Assistants may now serve as NT Data Entry Staff. For more information on our requirements and how to get setup with a SIS account, please contact [Jamie Matteson](#).
- Cases with a Large NT (≥ 3.5 mm) are given a *Large NT: Screen Positive* result and are eligible for special follow-up services. If you measure a large NT and are not immediately entering data into SIS, please call the case coordinator or referring clinician so that follow-up services can be made available to the patient as soon as possible.
- Please notify the Program when your contact information changes. If there is ever a problem with your NT credential or SIS account, we will contact you before we make any major changes.

We're Online

Visit our website for instructions on how to enter NT data online; tools for calculating the valid gestational age window; and various guidance documents for NT practitioners.

<http://www.cdph.ca.gov/programs/pns/pages/ntpractitioner.aspx>

Questions or Comments?

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NT Quarterly Bulletin

Practitioner-Specific Medians

Nuchal translucency data has a profound effect on calculated prenatal risk, making accurate evaluation of nuchal translucency (NT) critical to screening performance. NT measurements can be affected by a number of conditions, including fetal position, machine settings, and the position of calipers; furthermore, individual practitioners tend to consistently over- or under- measure, similar to instrument bias in a laboratory, resulting in over- or under- estimation of risk. Over time, consistent over- and under- measurement impacts screening accuracy and detection rates.

The California Prenatal Screening Program uses practitioner-specific medians whenever possible to correct for individual bias. When practitioners initially enter the Program, their NT measurements are converted to multiples of the median (MoMs) using the California median. Once a practitioner submits 75 exams to the Program, a practitioner-specific median is calculated and is used to convert their measurements to MoMs. On a quarterly basis, NT data for each practitioner is reviewed, and if necessary, their median is updated.

A recent study conducted by the Genetic Disease Screening Program found that using practitioner-specific medians corrects for practitioners' measuring bias (Wu et al 2012). The study found that while the median MoM based on the California median was 0.92 (SD = 0.103), the median MoM based on practitioner-specific medians was 1.01 (SD = 0.095). When risks for 55,278 screenings were recalculated using the California median instead of practitioner-specific medians, the overall screen positive rate decreased from 3.3% to 2.6%, translating to over 1,000 cases annually that would not be eligible for follow-up services through the Program. Furthermore, recalculation resulted in 14 chromosomally abnormal cases that the Program would have missed over a two year period (n = 55,278).

Wu N, Platt LD, Greene N, Currier RJ. Practitioner-Specific Medians for Nuchal Translucency to Improve First-Trimester Screening Performance. *Obstet Gynecol* 2012;119:785-94.

The referenced article is available from [Obstetrics & Gynecology](#) or by request from the Genetic Disease Screening Program.

Your NT Credential ID is Personal

The Program uses practitioner-specific medians to provide patients with the most accurate risk assessment possible. Using the correct Credential ID number is required so that exam data can be interpreted with the correct medians. If you enter exam data under an incorrect Credential ID, the data will be interpreted using the medians associated with the Credential ID you use. As a result, the patient may receive a less accurate case interpretation.

The table to the right shows how the use of an incorrect ID number can significantly change a patient's risk assessment. In this example, Practitioner 1 (NTP 1) and Practitioner 2 (NTP 2) have different medians (NTP 1 tends to measure low while NTP 2 tends to measure high). Using the correct practitioner-specific median corrects for this bias; in this case, the NT MoM using the correct median is 1.27 and the result is Screen Positive. However, the use of NTP 2's median results in an NT MoM of 0.67 and a negative screening result.

Program data shows that practitioner medians vary widely, even within one practice. Reporting data with the appropriate Credential ID number is essential to maintain the quality of screening.

	NTP 1 using NTP 1's Median	NTP 1 using NTP 2's Median
CRL	74.2	74.2
NT	1.4	1.4
Expected NT	1.1	2.1
NT MoM (Measured NT/ Expected NT)	1.27	0.67
Down Syndrome Risk	1:87	1:278
Down Syndrome Screening Result	Positive	Negative