

CA Prenatal Screening Program

NT Quarterly Bulletin

Large NT vs. Cystic Hygroma

Updates and Reminders:

- As of April 24, 2013, the maximum NT measurement that SIS will accept will be raised from 10 mm to 20 mm. Once this change takes effect, SIS users will be able to enter NT measurements up to and including 20 mm.
- Pregnancies with a fetal demise (triplet to twin) are now screenable in the second trimester if the demise occurred before 8 weeks gestation (CRL < 16.0 mm). The NT practitioner manuals and other support materials have been updated to reflect these policy changes. These materials are currently available on the NT practitioner [website](#).

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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The CA Prenatal Screening Program (the Program) occasionally receives questions about whether cystic hygroma measurements should be reported in the same way that nuchal translucency (NT) measurements are reported. While pregnancies with cystic hygromas have been shown to carry a significantly worse prognostic outcome than pregnancies with simple increased NT (Malone et al 2005), literature suggests that the incidence of these outcomes is more strongly associated with the measurement of the NT, rather than the visualization of septations in the translucency (Molina et al 2006). Therefore, it is important to measure and report large NTs regardless of whether there are also other characteristics of cystic hygromas.

Cystic hygromas and large NTs have similar outcomes and are both associated with chromosomal abnormalities, structural malformations, and fetal demise. In a 2005 study, the FaSTER group found that among 132 pregnancies with cystic hygromas, 51% (37/132) of fetuses had an abnormal karyotype, 31% (22/65) of chromosomally normal fetuses had structural malformations, and 15% (20/132) of pregnancies ended in fetal demise (Malone et al 2005). In a review of the literature, Souka et al found similar outcomes for pregnancies with large NTs, noting that the prevalence of negative outcomes increased exponentially with NT measurement. In pregnancies with NT above the 99th percentile (NT \geq 3.5 mm), the prevalence of chromosomal abnormalities ranged from 21% to 65%, increasing with the increasing measurement of the NT. Similarly, structural malformations occurred in 10% to 46% of fetuses with a normal karyotype, and fetal demise occurred in 3% to 19% of pregnancies with a large NT (Souka et al 2005).

Because cystic hygromas and large NT have similar outcomes, the Program does not differentiate between the two conditions for the purposes of prenatal screening. We ask that you submit data for cystic hygromas to the Program the same way that you submit large NT data. To accommodate the larger measurements of cystic hygromas, the Program will be updating the Screening Information System (SIS) to accept larger NT measurements. Starting April 24, 2013, SIS will accept NT measurements up to and including 20 mm, instead of the previous 10 mm limit.

Cases with an NT measurement of 3.5 mm or greater are given a "Large NT Screen Positive" result and are eligible for special follow-up services. When you measure an NT that is 3.5 mm or greater, please call the [Case Coordinator](#) or referring clinician so that follow-up services can be made available to the patient as soon as possible.

References

Malone FD, Ball RH, Nyberg DA, et al. First-Trimester Septated Cystic Hygroma: Prevalence, Natural History, and Pediatric Outcome. *Obstet Gynecol* 2005;106:288-94.

Molina FS, Avgidou K, Kagan KO, et al. Cystic Hygromas, Nuchal Edema, and Nuchal Translucency at 11-14 Weeks of Gestation. *Obstet Gynecol* 2006;107:678-83.

Souka AP, von Kaisenberg CS, Hyett JA, et al. Increased nuchal translucency with normal karyotype. *AJOG* 2005;192:1005-21.

Fuchs K and M D'Alton. "Cystic Hygroma vrs. Enlarged NT: Does It Matter?" *The NT Examiner* Summer 2008.

Timing for NT Data Submission

Gestational dating of a pregnancy within the Program is based on the Crown-Rump-Length (CRL) measured at the time of the NT exam (if available). As such, it is important that NT data be submitted to the Program as soon as possible so that blood draws can be scheduled, or rescheduled, accordingly. If circumstances are preventing you from submitting NT data in a timely manner, please contact us so that we may assist you in finding a data submission process that works better for you.