



# **PARTICIPANT HANDBOOK**

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# NTQR Participant Handbook

## I. Participant/Membership Benefits

### **Why choose NTQR when seeking Initial Credential?**

- Both online and land-based courses are available
- Online courses are specifically targeted to sonographers or physicians
- Web-based examinations specific to sonographers and physicians
- Images may be uploaded online or mailed, and video is NOT required
- The protocols for image review are evidence-based and have been validated
- Two reviewers judge all borderline or failing image batches, and individual image scores, images, and critiques available online
- Senior reviewers personally call participants who appeal image decisions

### **Benefits of being an NTQR credentialed provider:**

- Monitoring for quality is done by statistical review of measurements, with image submission required only if remediation is necessary
- Statistical reports are provided 3-4 times per year, with data sorted by physician-sonographer pairs
- Interactive website provides ongoing education for providers and patients, information about providers by location or name, practice guidelines, and administrator functionality
- Email support is available by phone or email at [support@perinatalquality.org](mailto:support@perinatalquality.org)
- Recommendations are based on consensus of NTQR committee with representation from:
  - American College of OB/GYN (ACOG)
  - American College of Osteopathic OB/GYN (ACOOG)
  - American Institute of Ultrasound in Medicine (AIUM)
  - American College of Radiology (ACR)
  - National Society of Genetic Counselors (NSGC)
  - Society of Diagnostic Medical Sonographers (SDMS)
  - Society of Maternal Fetal Medicine (SMFM)
- Representatives from NTQR have influence with healthcare organizations and third-party payers, and are working to ensure care provided by credentialed individuals is covered.

## II. NTQR Credentials

**NTQR credential ID numbers belong to a single participant and are to be used to identify only NT/CRL or NB data obtained or supervised by that individual. Participants who allow other individuals to use their NTQR credential number are subject to loss of their credentials.**

NTQR provides the following credentials:

- Physician Provider (Nuchal Translucency)
- Physician Provider (Nasal Bone)
- Sonographer / Non-Physician Provider (Nuchal Translucency)
- Sonographer / Non-Physician Provider (Nasal Bone)

Physician Provider Eligibility: Physicians may enter the NTQR program regardless of their medical specialty, and with either an MD or DO degree. The NTQR encourages physicians to comply with relevant Board and state licensure and hospital credentialing requirements. The NTQR program does not verify physician education, residency or fellowship training, state licensure or hospital privileges.

Physician, or sonologist, credentialing by the NTQR requires completion of the NTQR (or equivalent) background education program for sonologists, including but not limited to: first trimester risk assessment as well as the technical image criteria content required for sonographers; passing the web based NTQR examination for sonologists; and submission of at least 5 NT images that meet all criteria for proper measurement of the NT, as detailed below.

In many practices sonographers perform the technical acquisition of the NT image. The supervising physician performs the medical management and decision-making including program development, patient counseling, verification of measurement accuracy, and explanation of results and diagnostic options. In recognition of these different roles the NTQR program has developed specific educational and image proficiency requirements for physicians. Details are available in the *MFM Foundation Guidelines: NTQR Credentialing for Physicians*.

Sonographer Eligibility: Non-physician sonographers may become program participants and perform NT examinations.

However, because there is no independent practice of sonography in the US, a qualified/credentialed physician must formally interpret all NT examinations in a timely interval.

Sonographers entering the NTQR program are responsible for maintaining a comprehensive sonography credential with relevant obstetrical content provided by a nationally recognized agency. The NTQR endorses sonographer education and certification as required by the AIUM for obstetrical laboratory accreditation (currently the ARDMS OB/GYN credential). Sonographers must demonstrate

ARDMS OB/GYN credentials within 3 years of obtaining their NT credential.

Sonographer credentialing requires completion of the NTQR (or equivalent) background education program for sonographers, passing the web-based NTQR technical examination, and submission of at least 5 NT images that meet all criteria for proper measurement of the NT, as detailed below.

The NTQR will verify sonographer credentials. Sonographers required to complete performance improvement tasks will be required to document supervision by a qualified / credentialed physician who interprets their NT measurements.

Additional information is available in the *MFM Foundation Guidelines: NTQR Credentialing for Sonographers*.

### **III. Cost of Initial NTQR Credentials:**

**For participants with a FMF NT accredited sonographer credential:**

Physicians and Sonographers: \$50

**For those who attend a NTQR land-based or FMF web-based course:**

Physicians and sonographers: \$200

(NTQR land-based courses provide a promo code for this fee)

**For participants who enroll in the NTQR web-based course:**

Physicians: \$350

Sonographers: \$275

**For NT credentialed participants applying for nasal bone:**

Physicians and Sonographers: \$30

### **IV. Cost of Ongoing Monitoring:**

Credentialed Physicians are required to pay a flat yearly participation fee of \$150 (Fee is waived for physicians actively enrolled in a residency or fellowship program. Verification from program director is required).

Credentialed Sonographers are required to pay a yearly fee of \$35.00.

### **V. Types of NTQR Participants:**

**Active Participant**

Physician: defined by MD or DO check in degree field; may submit images scanned by others reflecting their understanding of the criteria; may appear as sonographer or supervisor in the NT/CRL database.

Sonographers: defined by any degree checked other than MD or DO; have to submit their own images; may appear as sonographer (not as supervisor) in the NT/CRL database.

Fellows: defined by letters from their program directors; have all fees paid by the NTQR during their fellowship; otherwise same as physicians above.

**Administrators:**

Contact person listed in practice administrator's account;  
May log in and access administrative account functions; deposit money; review participants withdrawing money;  
Increase in functionality of administrative accounts planned to facilitate group payments.

**Laboratory Contacts:**

Laboratory contact may log in and access epi reports for all participants with data from their laboratory. Receive newsletters.

**Revoked due to failure to pay participation fees:**

Cannot login to their account; do not appear in the NT/NB search directories; do not get reports or newsletters; do not receive payment notices after being revoked; laboratories are notified that NTQR # is revoked.

To reinstate, they will pay fees previously approved (\$50 within 6 months, \$100 between 6 months and a year, \$200 after 1 year) plus current participation fees. Most will fall into <30 data points per year and will be required to send images.

**Revoked due to failure to complete remediation:**

Cannot login to their account; do not appear in the NT/NB search directories; do not get reports; do not get payment notifications; NTQR will send regular reminders to complete remediation; laboratories are notified that NTQR# is revoked. Participant may reinstate without penalty or cost if they complete remediation and pay current participation fees.

**Deactivated at participant's request for any reason**

All participant information is soft-deleted; do not appear on NT/NB search directories; laboratories are notified that the NTQR # is not

valid; cannot log in. To reinstate, they will pay all fees. Most will fall into <30 data points per year and will be required to send images.

**Incomplete:**

This category includes incomplete registration or credentialing. Those who have not completed registration are soft deleted from the database after a time. Those who have registered but not completed credentialing are retained indefinitely unless duplication is found and the account is eliminated.

**Quality Assessment Deferred (QA deferred):**

This category would be for those who are not expected to perform NTs within their job setting for a minimum period of time of 18 months.

- No participation fees would be charged
- Participants could log into their accounts and access all functionality
- Participants are not subject to remediation or the minimum of 30 NT data sets/ year
- Participants do not get payment notifications or epi reports
- Participants do receive newsletters and other communication
- Participants do not appear on the credentialed search directories
- If NTQR receives 10 or more NT data sets from a laboratory then the participant is notified and required to move back into a monitored category and pay current participation fees

Examples of these participants:

Equipment application reps, Genetic counselors, Academic administrators, Retired participants, Sonographers who change jobs and move from an OB setting to a non-Ob lab.

This category does not include:

Maternity leave and other short-term absences; these participants may fall within the “under 30 NT data sets” category for remediation and be required to submit images when they return. If they are targeted for performance improvement prior to going on maternity leave they may request an extended period for completion of remediation.

Fellows in non-clinical rotations ---- may submit images every year to stay current.

## VI. Annual Renewal:

The NTQR credentials do not have an expiration date. Annual participation fees (\$150 for physicians, \$35 for sonographers) are due on the NT credential anniversary date. When annual participation fees are due participants will see a payment screen upon logging into their NTQR account. Payment of participation fees can be made online at <http://ntqr.perinatalquality.org>.

Participants with participation fees due will receive notification by e-mail 30 days before the fee is due. Another renewal reminder will be sent on the date the renewal is due. A third reminder will be sent when a provider is 30 days past due, 60 days past due, 90 days past due and 100 days past due. Upon the 100<sup>th</sup> day of delinquency, participants will be informed that their account is subject to deletion. In addition, notification of account deletion will be forwarded to all participating labs.

## VII. Epidemiologic Quality Monitoring

### **Data Collection:**

Participants' NT data may be received electronically from participating laboratories or can be directly submitted from participating sonologists and sonographers. Data for an individual can only be collected from participating laboratories if the NTQR number is appropriately entered.

If both a sonologist and sonographer want their measurements used for monitoring then the NTQR number for each must be entered on the laboratory requisition form that accompanies the patients' serum sample.

### **Epidemiologic Analysis:**

NTQR quality monitoring is based on epidemiologic analysis of individual participants' NT case data. Epidemiologic analysis commences when an individual submits at least 30 NT measurements to the NTQR program. . NT review is based on a comparison of the practitioners' measurements to those of a standard referent curve. *For review purposes, NT measurements are converted to multiples of the gestational age specific referent median (MOMs). The ideal practitioner's median NT should be 1.0 MOM with an expected 90th percentile range from 0.9 to 1.1 MoMs.* Practitioners with NT median MOMs or standard deviation values that are statistically outside the expected range may be required to complete quality maintenance activities. In evaluating a practitioners' performance both long-term cumulative results as well as those from the most recent interval are evaluated.

Examples of monitoring reports may be found on the <http://ntqr.perinatalquality.org> website

**Participants with Less than 30 NT data sets submitted annually:**

30 NT measurements are required to project an individual's measurement trend. If there are fewer than 30 NT measurements submitted a report will be generated but results of statistical testing will be stated as invalid due to low numbers. Participants with fewer than 30 NT measurements will be required to submit a minimum of three images per year to demonstrate continued competency to produce NT images meeting the standard criteria for measurement. There will be no additional cost to NTQR participants for digital submission of images. The images may be submitted through the "Image Refresher" link that is found under "Performance Improvement" upon login to the NTQR website. If the submitted images do not pass the image review process, additional images will be required until the standard criteria for NT image acquisition and measurement have been fulfilled.

**Report Generation and Distribution:**

If more than the requisite 30 NT measurements are submitted, a report will be generated, and results of statistical testing will be stated. The results of epidemiologic monitoring will be reported directly to:

1. The individual participant,
2. The individual's supervising physician if indicated by a recorded NTQR number on the requisition slips and
3. The designated practice administrator upon request.

Participating laboratories have access to reports of participants who submit NT data to their laboratory. The NTQR epidemiologic monitoring reports provide participants quarterly feedback on their NT measurements. A number of participants who are the farthest outside the range will be required to undergo quality maintenance. Those selected will be notified and must complete the activities specified under *Required Quality Maintenance*. The NTQR Quality Assessment (QA) committee will determine on a regular basis the participants who are required to complete quality maintenance. Selection is based on NT Median MOM and standard deviations. All participants outside the range are encouraged to engage in *Preliminary Performance Improvement*.

**VIII. Using the NTQR system for practice quality monitoring**

The NTQR epidemiologic reports are produced for and provided to each participant by e-mail. Site-specific numbers are not used in the development of the reports.

If two numbers are placed on laboratory requisitions, i.e. a physician supervisor number and a sonographers' number, then the participants' data will be sorted within their report. Physicians will receive a report with their data sorted by the sonographers working under them. Sonographers will receive a report with their data sorted by supervising physician. When



there is only one supervising physician within a practice and that physician's number is placed on every requisition, their report is essentially a practice report.

The NTQR is currently working on a practice-wide report for multi-physician practices. Until this option is available, NTQR recommends that the practice designate one person to review NTQR quality monitoring reports from all practice participants. A list of practice participants and the practice reviewer's e-mail may be sent to [support@perinatalquality.org](mailto:support@perinatalquality.org). Each quarter a zipped composite of reports for every participant listed will be sent to the named practice reviewer.

#### **IX. Data Submission**

Data may be submitted to NTQR by any combination of three ways:

Data submitted to NTQR via participating lab

Data submitted to NTQR via participants through NTQR website

Data submitted to NTQR via email (MS Excel spreadsheet) to [support@perinatalquality.org](mailto:support@perinatalquality.org)

#### **X. Participating Labs**

A complete listing of all participating labs can be found at the NTQR website (<http://ntqr.perinatalquality.org>) The following participating labs have an ongoing relationship with NTQR and automatically forward NT measurements for participants to NTQR

PerkinElmer

Integrated Genetics

California Department of Public Health

ARUP Laboratories

BioReference Laboratories Inc.

Cleveland Clinic

Clinical Pathology Laboratories

Detroit Medical Center University Laboratories

Geisinger Health System

LabCorp

Legacy Laboratory Services

PathGroup

Pathology Associates Medical Laboratories

Quest Diagnostics

Sunrise Medical Laboratories

University of Rochester Medical Center

University of Washington Medical Center

Warde Medical Laboratory

## **XI. Performance Improvement:**

Voluntary and required performance improvement is available within participants' account on the NTQR website.

The NTQR Quality Assessment (QA) committee will determine on a regular basis the participants who are required to complete quality maintenance. Selection is based on NT Median MOM and standard deviations. All participants outside the range are encouraged to engage in voluntary *Preliminary Performance Improvement*.

### **Preliminary Performance Improvement:**

When a provider is first notified that analysis of their NT measurements is outside the expected range, they should seek out credentialed colleagues whose values fall within the expected range to observe NT image acquisition and measurement and offer constructive critiques.

It will be the responsibility of the NT credentialed medical director or their designee to monitor progress of these individuals.

NTQR recommends targeted performance improvement activities for individuals whose NT values are reported to be outside the expected range. All performance improvement activities are available at no cost to NTQR participants. The tasks chosen may include any combination of the following:

- Review of the individual's NT measurements.
- Review of the technical lectures within the NTQR online course. The lectures may be found under "Education" upon login to the NTQR website.
- Review of specific suggestions related to measuring high or low that are provided.
- Voluntary submission and review of NT images through the "Image Refresher" link that is found under "Performance Improvement" upon login on the NTQR website.
- Monitoring NT measurement analysis by review of quarterly NTQR epidemiologic reports.
- Completion of the image review self-test available on-line.

### **Required Quality Maintenance:**

If a provider is notified of required quality maintenance, the provider will be required to complete the following:

- Update practice and supervision information.
- Review the provided suggestions related to measuring high or low.
- Document completion of review of the technical image lecture,
- Complete the image review self-test available on-line.
- Submit for review five new images from five separate fetuses.

If the submitted images do not pass the image review process, additional images will be required until the standard criteria for NT image acquisition and measurement have been fulfilled. Sonographers will be required to document supervision by an NT credentialed physician. Statements signed by NT credentialed physician (s) verifying supervision of NT measurement scans performed by the sonographer are mandatory. Required quality maintenance must be completed within 3 months of the date of notification. If remediation is not completed within 3 months, the relevant laboratories will be notified that the NTQR credential number is invalid until remediation is completed. Required quality maintenance will not occur for a given provider more frequently than once per year.

**Laboratory Notification of Required Quality Maintenance:**

Participating laboratories have ongoing access to quality monitoring reports of participants who submit data to their laboratory. A laboratory may request regular notification of participants selected for required quality maintenance. All laboratories receiving NT data from participants will be notified if quality maintenance activities required of individuals are unsuccessful. The credential status of such individuals will be reported to laboratories on a regular basis.

**Appeal Process:**

A participant who is required to participate in quality maintenance activities may write a letter of appeal to NTQR. Appeals are reviewed by a designated committee and if sustained may substitute for required quality maintenance.

## **XII. Image Review Quality Criteria**

Scoring Item	Details
a. NT margin of edges clear	Clear U/S image Angle of insonation perpendicular to NT space (fetal spine in horizontal position) Clear NT lines
b. Midsagittal plane	Midsagittal view of fetal spine seen in cervical and thoracic region Tip of nose seen in face area Third and fourth ventricle seen in fetal CNS
c. Image area maximized	The fetal head and thorax should occupy the majority of the image. If the CRL is visible the fetus is not magnified sufficiently. You should not be able to fit a second (same size) fetus in the ultrasound space surrounding the fetus; this implies that the fetus occupies > 50% of image.
d. Neutral position	The fetal head must be neutral without hyperflexion or hyperextension. Hyperflexion: Fetal head is flexed with no free space (amniotic fluid) seen between lower chin and anterior neck Hyperextension: Fetal is extended with an angle between lower chin and anterior neck of greater than 90 degrees (subjective assessment by reviewer)
e. Away from Amnio	Amnion seen separate from NT line
f. “ + ” calipers used	“+” calipers should be used for NT measurement
g. Horizontal crossbar placed correctly	Calipers placed on the inner borders of the nuchal space with none of the horizontal crossbar itself protruding into the space; the horizontal crossbar of the calipers on either side should not be in the black space
h. Calipers perpendicular	A vertical line connecting the 2 calipers should be perpendicular to the long axis of fetus
i. Measured at widest space	Measurement obtained at widest space of NT

If the initial batch is failed, the computer will calculate the number of additional images required for further review. This will be communicated in an auto-email to the provider as well as on the results page. If three consecutive batches are deemed unacceptable, the provider will be required to take the Technical Aspects lecture and submit additional images.

Upon successful completion of the image review, the provider will be NTQR credentialed and a Certificate of Completion will be awarded.

### **XIII. NTQR Participant Website Account**

To log into your account:

Go to <http://ntqr.perinatalquality.org>  
Insert your username and password

If you have forgotten your username:

Do not open a second account.  
Use the web assistant to retrieve your username or  
Contact NTQR:

phone 405-753-6534 or e-mail [support@perinatalquality.org](mailto:support@perinatalquality.org)

If you have forgotten your password:

Insert your username and then use the web assistant to retrieve your password or contact NTQR.

To change your e-mail: Go to MY ACCOUNT/ profile on the top menu

To change your password: Go to MY ACCOUNT/ password

To print receipts: Go to MY ACCOUNT/ payment history

To access a payment screen: Go to MY ACCOUNT/ products

To access the web-based calculator: Go to MY ACCOUNT/ summary

All NTQR communications are sent by e-mail. It is extremely important for NTQR participants to keep their e-mail within their NTQR accounts up to date.

### **XIV. Practice Administrator Account Information**

The NTQR credentials individuals, not practices. A practice administrator may deposit money in an account that all credentialed participants in the practice may draw on to pay NTQR education and participation fees. To establish an education and registration practice administrator account:

1. Go to <http://ntqr.perinatalquality.org>
2. Click "Are you a Practice Administrator? Register Now." (green button).
3. Select and record a username and password. If you later forget your login information seek help from [support@perinatalquality.org](mailto:support@perinatalquality.org). Do not create duplicate accounts!

4. Fill in contact and practice information.
5. Select registration and training account.
6. Select shared account (in most cases).
7. On the “select shared account” screen insert a promo code of your choice in the yellow colored square. Be sure and record the promo code selected.
8. Deposit moneys sufficient to pay fees for participants in your practice. You can find the balance of moneys in the account at any time using the top menu.
9. Give the promo code for your account to participants for whom you want to pay fees. These participants may log on and pay their fees by inserting the promo code at the payment screen. The money will be deducted from your practice administrator account.
10. Alternatively you may pay fees for participants in your practice by using their usernames and passwords and logging in for them. After logging on you pay individual fees using the practice administrator promo code. You will have to log on separately for each participant. If you do not know usernames and passwords send a list of practice participants to [support@perinatalquality.org](mailto:support@perinatalquality.org) and we will send a list of usernames and a common password. You may then change individual passwords to one that fits your practice.

**NTQR Contact Information:**

Address: 12316A North May Avenue  
Oklahoma City, OK 73120

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