

BELIEVE MIDWIFERY SERVICES

TITLE: AUSCULTATED ACCELERATION TESTS

EFFECTIVE DATE: November 11th, 2013

POLICY STATEMENT:

Auscultation of FHR with a fetoscope at or near 20 weeks' gestation continues to be of recognized value (Varney, 2004). The introduction of the hand-held electrical Doppler offered greater convenience and essentially eliminated the use of the fetoscope. The AAT has been proposed for women beyond 34 weeks' gestation with a single fetus. In general, use of the AAT may be of benefit for low-risk women.

BLOOD BORNE PATHOGEN

EXPOSURE CATEGORY: I (Involves exposure to blood, body fluids, or tissues)

FUNCTION: Care of Clients

POINTS OF EMPHASIS:

The development of the AAT and its comparison to the validity of the non-stress test has been described in several reports since 1986. The AAT has since been replicated nationally and internationally.

A study comparing the 6-minute AAT (AAT6) and the non-stress (NST) in prediction of perinatal outcomes more accurately than the NST; in the same study, however, the NST was a significantly better predictor of favorable outcomes (Paine, 1992). A second study established that there were no statistically significant differences or clinically meaningful trends between the 6- and 10-minute AATs.

The 6-minute AAT is a simple and effective test for the evaluation of fetal well-being and is preferred over the 10-minute AAT because of its relative ease of application in the clinical setting (Paine et al., 2001).

A high degree of sensitivity allows a test to identify accurately the characteristic being screened. The sensitivity of the AAT (100%) is indicative of a valid screening test. Nonreactive findings of the AAT accurately predicted all seven of the nonreactive NSTs. The specificity of a test reveals the percentage of those who are truly without disease (in this case, those with a reactive NST) who indeed have a negative screening test (a reactive AAT). The specificity of the AAT (85.37%) is very respectable. The predictive value of a positive (nonreactive) AAT (28.0%) is somewhat low and the false-positive rate (72.0%) relatively high. In clinical practice, this is certainly the only acceptable direction for a difference to occur in the results of the two tests (Daniels, 1991).

The AAT is an elegantly simple technique, which presumably can be applied by the full range of health workers in any setting worldwide. can be performed by a Registered Nurse and/or a Certified Nurse Midwife who has demonstrated competency in performing the AAT.

Under the supervision of the Certified Nurse Midwife, the Midwife Assistant may assist with auscultation and documentation of the fetal heart tones. However, interpretation of the Auscultated Fetal Heart Rate Graph remains the sole responsibility of the Certified Nurse Midwife or a Registered Nurse who has successfully completed the AWHONN fetal heart tone monitoring course. The Midwife Assistant shall never attempt to interpret the fetal heart tracing without completion of the AWHONN fetal heart tone course and/or discuss the results with the client.

The AAT could be used as a screening test beginning at 34 week's gestation provided that all nonreactive AATs have follow-up. This could be in the form of a repeat AAT later that day and/or referral for a NST, depending upon the circumstances and results. The AAT could be offered as an alternative to an electronically monitored NST for those consumers and caregivers concerned about prenatal exposure to ultrasound, when conducted with a fetoscope or horn. The AAT could decrease client inconvenience in instances where travel to another facility is required for a monitored NST, because the AAT could be easily performed in the office of the health care provider in a matter of minutes. The use of the AAT could decrease expenses incurred by the client by decreasing the use of the expensive

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monitoring equipment that requires the attendance of trained personnel for its use. In the clients home where EFM is unavailable, the AAT could prove to be a valuable assessment tool.

AAT Procedure and Interpretation
Procedure
Use an Allen fetoscope, a horn, or a Doppler. Auscultate the FHR for 6 min, counting during every other 5-sec interval. Document auscultated FHRs on AAT graph.
Interpretation
Identify the baseline FHR. An acceleration is present when the FHR is up by two grid points (2 beats per 5-sec period). A single FHR acceleration indicates reactivity.

EQUIPMENT:

1. Doppler, Pinard horn or Fetoscope
2. Ultrasound gel
3. AAT graph
4. Second-hand
5. Blood pressure cuff and stethoscope

PROCEDURE:

1. Have client lie in a comfortable position on her side during procedure.
2. Document vital signs prior to procedure.
3. Utilize either Doppler or fetoscope to obtain FHTs following Leopold's maneuver.
4. Count each five second interval, or every other five second interval, and place a dot on the appropriate position on the AAT graph.
5. Listen for a minimum of five minutes, documenting consistently five second intervals in effort to assess fetal heart rate variability and fluctuations.
6. An acceleration is present when the FHR is up by two grid points (2 beats per 5-sec period).
7. A single FHR acceleration indicates reactivity; however, interpretation remains the responsibility of the certified nurse-midwife and/or Registered Nurse who has successfully completed the AWOHNN fetal monitoring course.
8. Any audible variable of concern indicates the need for more intensive fetal monitoring and the client should be referred to the local hospital for non-stress testing. Notify the CNM immediately with any concerns.

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Originated: July, 2008

Penny Lane MSN, CNM

DATE: **11/11/2013**

Holly Hopkins MSN, CNM

DATE: **3/21/2011**

Michelle Burton

DATE: **6/4/2012**