

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
CARDIO PULMONARY POLICY MANUAL  
TRANSCRANIAL DOPPLER**

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**Purpose:** Transcranial Doppler (TCD) is a diagnostic procedure using ultrasound to assess the arteries located at the base of the brain. The purpose of this test is to detect any narrowing or blockage in these arteries that may decrease or stop the flow of blood to the brain. Used to help in the diagnosis of emboli, stenosis, vasospasm from a subarachnoid hemorrhage (bleeding from a ruptured aneurysm), and other diseases.

**Procedure:** TCD is done by placing a probe with gel against the areas of the head. The probe is placed on the temples and on the base of the skull at the back of the neck. In these places, there is the least amount of thick protective bone and the sound waves can penetrate the best. The technician will adjust the probe position and orientation to direct the sound waves toward the blood vessels of interest and highest flow. The technician will acquire a picture of the highest flow measurements of the right and left MCA, PCA, ICA, ACA, right, left Vertebral and Basilar arteries. When the technician is finished with the test the gel is cleaned off the patient and the order will be finalized in the Cerner system determining whether the test is complete or limited. The test is logged in the logbook and a form is placed in the physician's room to be read with a face sheet. When the TCD is read, it is transcribed and will be available in the Cerner system. A full TCD exam may last 15-30 minutes and often longer in patients with disease. When performing an in patient the order will be a task in Cerner. When you are finished performing the task open the patients chart and complete the patient's task. Then open patient's chart and enter a charge and indicate whether it was a complete or a limited study that will place a charge in Cerner. When doing an out-patient, after you have performed the test, enter the task as limited or complete. That will enter, finalize, and charge the order. Enter the order number of the charged study on the preliminary paperwork.