**Plano Independent School District**

**School Health**

**Blood Pressure Measurement Administrative Guideline**

**Purpose**

To ensure accurate measurement of blood pressure level.

Blood pressure is a measurement that defines how well the heart is pumping blood through the body. It is measured in millimeters of mercury (mm Hg). The top number is the systolic and the bottom number is the diastolic.

The most common reason for high blood pressure is the inherited (genetic) form known as primary hypertension. This accounts for the majority of cases in adults and children. The remaining cases are due to secondary hypertension, attributed to underlying cause, such as kidney abnormalities, congenital heart defect, tumor of the adrenal gland, drugs, anxiety or overdoses.

In adult, there are set parameters that define hypertension. In children, a diagnosis of hypertension is determined by gender, height, and age.

**Definitions**

* **Brachial artery–** Major blood vessel of the upper arm.
* **Diastolic–**Pressure when the heart is at rest. Bottom or second number of the measurement.
* **Hypertension–** High blood pressure
* **Normal blood pressure –** Systolic <120 mm Hg and diastolic < 80 mm Hg.
* **Pre-hypertension–** Systolic 120-139 mm Hg or diastolic 80-89 mm Hg.
* **Stage 1 Hypertension–** Systolic 140-159 mm Hg or diastolic 90-99 mm Hg.
* **Stage 2 Hypertension–** Systolic greater than or equal to 160 mm Hg or diastolic greater than or equal to 100 mm Hg.
* **Sphygmomanometer–**A device used to measure blood pressure, composed of an inflatable cuff and a manometer.
* **Systolic –** Pressure when the heart is pushing blood out through the arteries. Top or first number of the measurement.

**Program Coordinator**

Coordinator for District Health

Special Education Nurse Case manager

**Responsibilities**

* Coordinates with Plano ISD principals and/or building manager and school nurses in the selection of employees for training.
* Assure quality improvement by revising this guideline as required through the monitoring of training .
* Communicate with medical officer on issues related to quality of care.

**Environment/Settings**

There are no restrictions as to where blood pressure measurement can be done, however it is best to be done in a quiet setting such as the clinic. A quiet environment allows for the signals to be heard with the stethoscope. The setting should be clean and appropriate to the student’s need/desire for privacy.

**Applicable documents**

* Guideline
* Training checklists
* Problem List
* Physician orders
* Individual Health Care Plan – if applicable

**Medical Control**

The medical advisor of the blood pressure measurement guideline is the Plano ISD’s medical officer. The medical officer will direct the following:

* Medical direction in the formulating of the guideline.
* Review and approve the above.
* Evaluation as needed

**Restrictions/requirements**

* Current Physician orders if applicable
* Consent for Contact of Health Care Professional
* Development of IHP by RN

**Staff Training and Preparation**

Blood pressure measurement can be performed by the school nurse or unlicensed personnel as trained by the RN. School nurses will review the applicable documents. Training for the school nurses will be conducted by the Coordinator for District Health, Special Education Nurse Case Manager and/or the Special Assignment nurses. Training for the unlicensed personnel can be done by the school nurse. Training and ongoing verification of training will be documented by the training checklist. Additional questions or concerns beyond Plano ISD training should be directed to the school nurse, family and/or health care provider.

**Training**

* Registered Nurse is the person responsible for the training.
* Unlicensed personnel may be trained by an RN.
* Training is done yearly and as needed throughout the year.
* Guideline, problem list, physician orders and parent request are to be reviewed prior to training and throughout the year for review.
* Individualized Health Plan is completed by the nurse.
* Competency checklist must be signed and dated yearly and periodically throughout the year as needed for verification of skills.
* Information is shared with other employees on a need to know basis.

**Procedural Guideline**

1. Check doctor’s order, IHP, and action plan.
2. Use universal precautions. Wash hands before procedure.
3. Identify and explain the procedure to the student at his/her level of understanding.
4. Assemble equipment: sphygmomanometer with appropriate sized cuff (bladder should be at least 80% of the circumference of the arms), stethoscope, alcohol wipe.
5. Position the student in a sitting position with his/her feet on the floor. The student’s forearm is at heart level with palm of hand turned up.
6. Palpate (feel) brachial artery and position cuff properly above the brachial artery.
7. Wrap deflated cuff evenly and snugly around the upper arm, 1-1 ½ inches above the elbow and position manometer or gauge correctly for the reading.
8. Place stethoscope earpieces in your ears.
9. Place stethoscope diaphragm or bell over brachial artery.
10. Tighten thumbscrew on valve of cuff to close it and inflate to 30 mm above expected systolic pressure.
11. Open valve counterclockwise and let the air out slowly and evenly (2-3 mm per second).
12. Listen and note the point on the gauge when the first clear sound (systolic pressure) is heard.
13. Continue to deflate the cuff gradually and note point on the gauge when the last sound is heard (diastolic pressure).
14. Rapidly deflate the cuff completely and remove from student’s arm.
15. Clean stethoscope earpieces and bell with alcohol.
16. Wash hands.
17. Record and document. Report any variation from the expected reading indicated by the health care provider to the school nurse.

**Medical Officer Signature:**

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Physician Signature/PISD Medical Officer