

TRAINING SESSION

COM-472

Training and Development

Professor Dorothea Terry

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Joseph Flores

Purpose / Agenda

- ▶ It has been brought to management's attention that many nurses and nurse's aides are frustrated with the lack of working automatic blood pressure machines in our department.
- ▶ While we are sending out our equipment for repair, we are offering this skills update to all staff to refresh your skills in taking a manual blood pressure on our patients when there isn't an available blood pressure monitor available.
- ▶ With our "Patient's First" vision we can continue to provide the best care to all of our patients while decreasing the frustration of looking for necessary equipment.
- ▶ Please take this opportunity to refresh your skills of taking manual blood pressures often so you will feel comfortable when there are not enough automatic machines available

Learning Objectives

- ▶ In this session you will learn:
 - ▶ Proper positioning of the patient and equipment for accurate blood pressure readings
 - ▶ How to identify the components of the blood pressure cuff and stethoscope
 - ▶ Determine systolic and diastolic blood pressure by listening to Korotkoff sounds
 - ▶ Proper techniques for inflating and deflating the blood pressure cuff
 - ▶ How to interpret and record blood pressure readings accurately
 - ▶ Identify common errors in blood pressure measurement and learn strategies to avoid them
 - ▶ Practice effective communication skills when interacting with patients during the procedure.

How to Take a Manual Blood Pressure

- ▶ Gather equipment
- ▶ Wash your hands
- ▶ Introduce yourself
- ▶ Inform the patient what you are going to do
- ▶ Make sure the patient is sitting in a comfortable position with their arm at the level of the heart and legs are uncrossed



Gather Equipment



Stethoscope



Manual Blood Pressure Cuff

Introduce Yourself



How to Use a Manual Blood Pressure Cuff



Twist the air release valve all the way to the right to close it off.



Wrap the cuff around the arm just above the arm just above the elbow. Keep it snug but not too tight.



Place the stethoscope head on the brachial artery and find the pulse.

How to Use a Manual Blood Pressure Cuff (continued)



Pump air into the cuff until you no longer hear the pulse



Slowly release the valve and listen to the beats



Record the first (systolic) and last heart beat (diastolic) you hear.

Video of Taking a Manual Blood Pressure



(Geeky Medics, 2015)

Common Terms

- ▶ **Systolic Blood Pressure** – measures the pressure in the arteries when the heart beats – this is the top number
- ▶ **Diastolic Blood Pressure** – measures the pressure in the arteries when the heart rests between beats – this is the bottom number
- ▶ **Korotkoff Sounds** – the sounds heard when taking a manual blood pressure. The first sound heard is the systolic pressure. When the sounds are no longer heard marks the diastolic pressure.
- ▶ **Sphygmomanometer** - a medical instrument that detects and measures blood pressure. It contains an inflatable cuff, a measuring unit, and a mechanism for inflation.

Understanding Blood Pressure Readings

Blood Pressure Categories



BLOOD PRESSURE CATEGORY	SYSTOLIC mm Hg (upper number)		DIASTOLIC mm Hg (lower number)
NORMAL	LESS THAN 120	and	LESS THAN 80
ELEVATED	120-129	and	LESS THAN 80
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 1	130-139	or	80-89
HIGH BLOOD PRESSURE (HYPERTENSION) STAGE 2	140 OR HIGHER	or	90 OR HIGHER
HYPERTENSIVE CRISIS (consult your doctor immediately)	HIGHER THAN 180	and/or	HIGHER THAN 120

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(American Heart Association, 2023)

Conclusion

- ▶ Demonstrate proper positioning of the patient and equipment for accurate blood pressure readings
- ▶ Identify the components of the blood pressure cuff and stethoscope
- ▶ Practice listening for Korotkoff sounds to determine systolic and diastolic blood pressure
- ▶ Demonstrate proper techniques for inflating and deflating the blood pressure cuff
- ▶ How to interpret and record blood pressure readings accurately
- ▶ Identify common errors in blood pressure measurement and learn strategies to avoid them
- ▶ Practice effective communication skills when interacting with patients during the procedure.

Questions and Feedback



Thank you

- ▶ Thank you for participating in this skills refresher
- ▶ We appreciate your patience and all the hard work you do to provide quality care to our patients.
- ▶ If you need more help or have any questions or suggestions, please let me know.

References

American Heart Association. (2023). *Understanding blood pressure readings*. Retrieved from

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