Adherence and Monitoring of Hypertensive Patients.

Conflicts of Interest

- Speaker has no conflicts of interest to disclose.
- I have had no financial relationship over the past 12 months with any commercial sponsor with a vested interest in this presentation.

Brought to you through a partnership:

[Images of logos: North Dakota Department of Health and About the Patient]
Thank you for taking part in this training to enhance your skills to care for patients with Hypertension.

Three Module Series

- Workflow
- Inspiring Patients
- Vital Signs Review

Objectives

- Outline the components/pharmacy staff and eligible patients for the Hypertension Control Inspiration Program (HIP)
- Determine the best way to use pharmacy staff to improve blood pressure control for hypertensive patients
- Optimize engagement of eligible patients through face-to-face counseling
- Optimize patient’s medication adherence
- Optimize blood pressure measurement techniques
- Optimize pulse and respiration measurement techniques
- Determine patient medication barriers to adherence
- Optimize accurate blood pressure assessment via aneroid sphygmomanometer
- Optimize accurate pulse and respiration assessment

https://www.smm.org/heart/heart/pumping.htm
DRAW Application

- Think about a patient you recently counseled on a medication and how they would answer the DRAW tool questions.
- Find a partner...
- Role play your “patient” with your partner as they conduct a DRAW work-up, then switch roles.
- Identify action that you would take as a pharmacist to address the patient’s barriers to adherence.
Quiz

A 57 year old customer comes for a blood pressure check. He is currently on a combination blood pressure medication. His past two readings in his log from 3 months ago: 134/82 and 140/94. Today his average blood pressure is 144/98. The next best step is...

A. Recommend increase in current medication.
B. Educate on the consequences of elevated blood pressure.
C. Educate on DASH diet since he is almost at goal.
D. Identify any barriers to medication adherence.

Quiz

A 63 year old customer comes for a blood pressure check because he does not think he needs medication. He takes three medications at maximum doses for his blood pressure. Today his average blood pressure is 118/84. The next best step is...

A. Emphasize that the physician ordered the medication.
B. Educate on the complications of uncontrolled blood pressure.
C. Ask an open ended question to understand his concern.
D. Contact his primary provider to decrease medication dosing.

Hypertension-control Inspiration Program (HIP)

VITAL SIGNS REVIEW
Vital Signs

- Blood Pressure, Heart Rate, Respiratory Rate, Temperature, +/- pain

Anatomy Review

Blood Pressure

- Measured by a Stethoscope and a Sphygmomanometer
- Inaccurate cuff size is the most common error in BP measurement
- In "new" to you patient take blood pressure in both arms and for subsequent monitoring repeat measurement on arm with higher pressure

http://circ.ahajournals.org/content/88/5/2460.full.pdf
Blood Pressure

Ideally blood pressure should be taken after the patient is at rest for 5 minutes in a comfortably warm and quiet room on an arm free of clothing.

- The patient/customer should have not consumed caffeine or tobacco for 30 minutes prior to measurement. No strenuous exercise for at least 30 minutes prior to measurement.
- Patient position should be seated
  - In a chair with good back support where arms are at heart level and feet are flat on the floor (no crossed legs)

http://circ.ahajournals.org/content/88/5/2460.full.pdf
http://solutions.3m.com/wps/portal/3M/en_Litmann/stethoscope/products/stethoscope

Bell

Diaphragm


Or

https://www.youtube.com/watch?v=pJoP4eq--Hg

Blood Pressure


Or

https://www.youtube.com/watch?v=pJoP4eq--Hg
Blood Pressure

https://www.youtube.com/watch?v=VJrLHePNDQ4

BP Simulator:
http://www.csuchico.edu/atep/bp/bp.html

Blood Pressure
http://circ.ahajournals.org/content/88/5/2460.full.pdf

"Have the subject raise the arm over the head and make a fist several times. Inflate the cuff, while the arm is overhead but the hand is relaxed to a level 50mmHg above expected SBP, have patient lower arm quickly, and measure the blood pressure in the usual manner. Draining the venous blood in this fashion often amplifies sound."
Heart Rate/Respiratory Rate

- **Pulse**: Palpate using the pads of your fingers to assess rate and rhythm of the radial pulse
- **Respirations**: Visually inspect the chest or abdomen without the patient's knowledge

Count Pules for 30 sec. then Respirations for 30 sec. and multiply both by 2

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<table>
<thead>
<tr>
<th>Exam/Test</th>
<th>Recommended Frequency</th>
<th>Goal</th>
<th>Clinical Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood Pressure</td>
<td>At Every Visit</td>
<td>Patients 65-69 or 80 and older with chronic medical conditions (Diabetes) less than 140/90 mmHg Patients 60 and older without chronic medical conditions less than 140/90 mmHg</td>
<td>Used to evaluate the effectiveness and safety of antihypertensive drugs for patients with chronic medical conditions and older adults.</td>
</tr>
<tr>
<td>Pulse</td>
<td>At Every Visit</td>
<td>Greater than 60-100 bpm</td>
<td>Used to measure the effectiveness and safety of antihypertensive drugs for patients with chronic medical conditions and older adults.</td>
</tr>
<tr>
<td>Respiration</td>
<td>At Every Visit</td>
<td>12-20 bph</td>
<td></td>
</tr>
</tbody>
</table>

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Lifestyle and blood pressure

For each of the following factors please indicate how confident you are that it elevates blood pressure to cause harm to the body.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Not at all confident</th>
<th>Somewhat confident</th>
<th>Extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salt</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tobacco</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccines</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Complications

For each of the following factors please indicate how confident you are that they are direct complications of consistently high blood pressure.

<table>
<thead>
<tr>
<th></th>
<th>Not at all confident</th>
<th>Extremely confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Heart Attack</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Asthma</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Bladder</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Kidney Damage</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Sexual Dysfunction</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

Resources