Hypertension

Biopsychosocial Assessment and Treatment

in Integrated Primary Care Settings

JEFFREY L. GOODIE, PhD, ABPP
Biopsychosocial factors and treatments related to hypertension

- **Behaviors/Environment**
  - Overweight and obesity
  - Diet
  - Inactivity
  - Alcohol

- **Cognitive/Emotions/Environment**
  - Stress
  - Other emotional factors

- **Physical**
  - Increased age
  - Race
  - Genetics
Sodium

• Actual sodium intake
  • U.S. adults average daily intake is >3,300 mg/day
  • 90% consume more sodium than recommended

• Recommended levels of sodium intake 2010
  • Dietary Guidelines for Americans
  • Reduce sodium to 2300 mg/day

DASH Diet

• Emphasizes
  • Fruits & vegetables
  • Low fat dairy
  • Reduced saturated and total fat

• Goals
  • Sodium: 2300 mg
  • Potassium: 4700 mg
  • Magnesium 500 mg
## Impact of lifestyle modifications

<table>
<thead>
<tr>
<th>Modification</th>
<th>Recommendation</th>
<th>SBP Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight reduction</td>
<td>BMI 18-5-24.9</td>
<td>5-20 mmHg/22 lbs (10 kg)</td>
</tr>
<tr>
<td>DASH eating</td>
<td>Fruits, veg, low sat. fat</td>
<td>8-14 mmHg</td>
</tr>
<tr>
<td>Reduce sodium</td>
<td>2400 mg sodium</td>
<td>2-8 mmHg</td>
</tr>
<tr>
<td>Physical activity</td>
<td>30 min, mod., most days</td>
<td>4-9 mmHg</td>
</tr>
<tr>
<td>Moderate ETOH</td>
<td>2/day men; 1/day women</td>
<td>2-4mmHg</td>
</tr>
</tbody>
</table>

Adapted from JNC 7 Chobanian et al. (2003)
Emotional factors

- Causal relation **NOT demonstrated** b/w stress and hypertension
- **Evidence unclear** about relation to hypertension
  - Anxiety
  - Depression
  - Hostility/cynical hostility
  - PTSD
Using the 5 A’s to Target Hypertension in Integrated Primary Care Settings
Assess

- Knowledge
- Impact
- Weight
- **Eating habits**
  - Sodium
- Physical Activity
- Alcohol
- Medication Use
- Emotional Response
Advise/Agree

- Importance of **blood pressure reduction**
- Role of **lifestyle change** on hypertension
- Educate about **possible changes**
- Collaborate on **what patient wants to change**
Assist

- **Weight loss**
- **Increase** physical activity
- **Alcohol**
  - Limited use
    - Men <1 drink/day; Women <2 drinks/day
- **Diet**
  - 2,300 mg sodium/day limit
  - DASH, Mediterranean
Assist

• Medication adherence
• Stress Management/Relaxation
• Emotional Responses
  • Tailor recommendations based on impact
  • Focus on Functioning and Quality of life
  • Distinguish immediate and chronic effects on BP
Arrange

• **Follow-up**
  - Frequency dependent on target behaviors
  - Consider telephone contact to facilitate change

• **Care manager involvement**
• Consider vertical integration methods
  - Classes targeting hypertension
  - Shared Medical Appointments

• **Referrals**
  - Dietician
  - Wellness Center/physical trainer
NATIONAL REGISTER
OF HEALTH SERVICE PSYCHOLOGISTS