

## Pharmacists' Role in Hypertension Management

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## Objectives

- Pharmacists' Role in the Collaborative Healthcare Team
- Pharmacists and Medication Management
- Disease Education and Medication Counseling
- Improving Medication Adherence
- Lifestyle Management Counseling

## Collaborative Care Team

- By 2025, it is predicted that more than 1.5 billion people worldwide will have HTN<sup>1</sup>

## Collaborative Care Team

- Lowering blood pressure (BP) with lifestyle modification, medications, or both can substantially reduce a patient's risk for disease<sup>2</sup>
- Only 50% HTN patients have adequate BP control<sup>4</sup>

## Collaborative Care Team

- Many causes for poor BP control<sup>5-8</sup>:
  - Lifestyle choices
  - Sub-optimal patient medication adherence
  - Failure to intensify therapy by clinicians (*clinical inertia*)
- Most effective strategy to improve BP control<sup>9,10</sup> → Team-Based Care

### **Collaborative Care Team**

- **Collaborative Care**
  - **Chronic Care Model<sup>11</sup>**
    - **Collaborative partnership between patient, provider, and care team**
      - **Each share in the decision making process**

### **Collaborative Care Team**

- **Supports the patient's management of chronic disease over multiple encounters and adjustments in the treatment plan to achieve optimal care**

### **Collaborative Care Team**

- **Patient-Centered Medical Home<sup>11</sup>**
  - **Patient care should be organized around the needs of the patient, their relationship with their physician, and the physician-led teams form and reform based on the patient's needs**

### **Collaborative Care Team**

- **Physician delegates responsibility to other care team members**
  - **Performing medication history**
  - **ID problems and barriers to disease control**
  - **Counseling on lifestyle modification**

### **Collaborative Care Team**

- **Adjust medications based on HTN guidelines**
  - **This allows the physician to address more acute problems and complications**

### **Collaborative Care Team: Pharmacists' Role<sup>11,12</sup> Assist with Medication Management**

- **Design drug and monitoring regimens**
- **Recommend adjustments to medication therapy for patients not at goal**
- **Optimize medication regimens for specific patient subgroups**

### **Collaborative Care Team: Pharmacists' Role<sup>11,12</sup>**

#### **Assist with Medication Management**

- Simplify or manage complex drug regimens
- Adherence assessment and strategies
- Recommend cost-effective medications
- Perform drug-drug interaction reviews

### **Collaborative Care Team: Pharmacists' Role<sup>11,12</sup>**

#### **Patient Counseling**

- Disease education
- Discuss rationale of drug therapy choice
- Proper medication use
- Medication administration
- Medication storage

### **Collaborative Care Team: Pharmacists' Role<sup>11,12</sup>**

#### **Patient Counseling**

- Adverse reactions
- Lifestyle management

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 1973 – Community pharmacists evaluated medical records and made recommendations for changes in therapy at an urban health center in Detroit
  - BP significantly improved in the intervention group
  - BP control deteriorated when intervention discontinued

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 2003 – Physician-pharmacist co-management of HTN within an integrated healthcare system, where patients attended a HTN clinic run by pharmacists, and the pharmacists made recommendations to the treatment plan.
  - SBP was reduced significantly in the co-managed group than usual care

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 2007 – Meta-analysis of pharmacy-based interventions found that pharmacists' interventions significantly reduced SBP

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 2008 – Pharmacists made specific recommendations, mainly therapy intensification, to physicians and patients to improve BP control in a 9-month study
  - BP goal was achieved in 89% of the intervention group
  - The intervention had long-lasting effects

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 2009 – Clinical pharmacists made drug-therapy recommendations to physicians based on national guidelines
  - Adjusted difference in SBP at 6 months: -12 mmHg
  - BP was at goal in 63.9% of the intervention group
  - The intervention had long-lasting effects

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- 2009 – Meta-analysis evaluating potency of pharmacist-assisted management of HTN showed a significantly greater likelihood of controlled BP

### **Collaborative Care Team: Pharmacists' Role<sup>11</sup>**

- Components that were most effective in reducing SBP:
  - Pharmacists recommending therapy to the physician (-9.3 mmHg)
  - Patient education provided by pharmacist (-8.8 mmHg)
  - Medication adherence assessed (-7.9 mmHg)

### **Pharmacists' Role: Medication Management**

- Design drug and monitoring regimens
- Recommend adjustments to medication therapy for patients not at goal
- Optimize medication regimens for specific patient subgroups

### **Pharmacists' Role: Medication Management**

- Simplify or manage complex drug regimens
- Adherence assessment and strategies
- Recommend cost-effective medications
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## **Disease Education and Medication Counseling**

### **Disease Education**

- Patients must have a basic understanding of the disease to make informed decisions about their medications<sup>14</sup>
- Allows for the discussion of the rationale behind drug therapy choices
- Pharmacists are easily accessible health experts

## **Disease Education and Medication Counseling**

### **Medication Counseling**

- Proper medication use
- Medication administration
- Medication storage
- Adverse reactions

## **Medication Adherence<sup>13,14</sup>**

- Estimated that poor adherence costs \$100 billion annually in the United States
- Nonadherence may be voluntary or involuntary

## **Medication Adherence<sup>13,14</sup>**

- Strategies to improve adherence
  - Ensure patients understand purpose of medication
  - Involve patient in decision-making
  - Simplify medication regimen
  - Medication reminders
  - Resolve adverse drug reactions
  - Monitor and adjust drug therapy

## **Medication Adherence<sup>13,14</sup>**

- Educate patient on risks associated with nonadherence
- Use positive reinforcement

## **Lifestyle Management Counseling<sup>13</sup>**

- Nutrition
  - DASH diet and sodium reduction
- Physical Activity
- Weight loss management

### **Lifestyle Management Counseling<sup>13</sup>**

- Alcohol use
- Smoking Cessation
- Home BP monitoring

### **Pharmacists' Impact on Hypertension Management**

- Clinically significant benefits in HTN management when integrated into the healthcare team
- Assist in providing optimal medication management
- Easily accessible health experts able to provide health education and medication counseling

### **Pharmacists' Impact on Hypertension Management**

- Improve medication adherence
- Provide various types of lifestyle management counseling

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