Local Innovations to Control: A Pathway to Success

Missouri Hypertension Control Summit

Tuesday, December 10, 2019
The Donald Danforth Plant Science Center

Carolyn Koenig, MD
Chair of Quality, Safety and Value
Medical Director of Care Management
Mercy Clinic East Community
Hypertension Prevalence

Missouri’s Urgency for Changing the Health System

National
HTN Prevalence Rate
(2015-2016)

Missouri
HTN Prevalence Rate
(2017-2018)

29%

32%

https://www.cdc.gov/nchs/products/databriefs/db289.htm#targetText=During%202015%E2%80%932016%2C%20the%20prevalence%2C%20Hispanic%20(27.8%25)%20adults.
Missouri’s Urgency for Changing the Health System

Hypertension Prevalence

National HTN Prevalence Rate (2015-2016)
29%

Missouri African American HTN Prevalence Rate (2017-2018)
38.5%

https://www.cdc.gov/nchs/products/databriefs/db289.htm#targetText=During%202015%E2%80%932016%2C%20the%20prevalence,or%20Hispa
Missouri’s Urgency for Changing the Health System

- **Cardiovascular Disease Burden in Missouri:**
  - Heart disease continues to be the leading cause of death (14,818 in 2017; 3,640 MIS) heart attack is 24.56% of all heart disease deaths.
  - Essential hypertension is 11th leading cause of death in the African-American community.
  - Stroke is the fifth leading cause of death (3,159 in 2017).

- **Behavioral Risk Factor Surveillance System (BRFSS) Data:**
  - Prevalence of smoking, physical inactivity, inadequate fruit and vegetable consumption, obesity, hypertension, high cholesterol and diabetes - *generally higher than US.*
Prevalence of High Blood Pressure by Demographic Characteristics
Missouri, 2017
Blood Pressure is the single most modifiable risk factor for preventing heart attacks and strokes.
About Mercy

Headquartered in St. Louis, Mercy is one of the largest Catholic health systems in the US, serving millions each year over a multi-state footprint through touchpoints including outreach ministries and virtual care.

Hospitals & Ambulatory Sites
- 29 acute care hospitals
- 4 heart hospitals
- 3 rehab hospitals
- 2 children's hospitals
- 2 orthopedic hospitals
- 1 virtual care command center
- 903 physician practices
- 345 clinic locations
- 12 outpatient surgery centers
- 35 urgent care sites
- 29 convenient care centers

Medical Staff & Co-workers
- 45,000+ co-workers including:
  - 2,400+ integrated physicians
  - 1,500+ integrated advanced practitioners

Utilization FY18
- 3,331 staffed beds
- 25,081 births
- 178,104 surgeries
- 195,151 inpatient discharges
- 10,290,454 outpatient visits
- 738,977 ED visits

Financial Information FY18
- $6.3 billion total operating revenue
- $7.5 billion total assets
- $279 million community benefit/charity care
Congratulations

2015 Hypertension Control Champions

Full list of Champions at millionhearts.hhs.gov

Mercy
Hypertension Control at Mercy East 2015-2019

TARGET: BP

Compliant Non-Compliant Hypertension Control Rate 80%

January 2015: 74.7% January 2016: 76.4% January 2017: 76.6% January 2018: 77.3% January 2019: 77.5%
Vital Signs are Vital
Vital Signs... are Vital

Goal <140/90
“Over-communicate the plan and the current status against the plan.”

-Alan Mullaly
It Takes a Team

- Primary Care Doctor
- Data Analyst
- Medical Receptionist
- Medical Assistant
- Practice Manager
- Patient
- Clinical Pharmacist
- Specialist
- Nurse Care Manager
## Physician Hypertension Transparency Reports

### MERCY CLINIC EAST COMMUNITIES
**ADULT PRIMARY CARE - ST. LOUIS**
**FY20 QUALITY MEASURE REPORT: HYPERTENSION**

### Hypertension (Goal 80%)

- **Source:** Population Health Data
- **Numerator:** Total # of HTN patients compliant with measure
- **Denominator:** Total # of HTN patients seen in the last 24 months

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| Group Percentage | 78.8% | 79.5% | 79.1% | 79.3% | 79.5% | 80.5% | 80.5% | 80.3% | 80.1% |
Engaging medical assistants

BP Accuracy Video
7 SIMPLE TIPS TO GET AN ACCURATE BLOOD PRESSURE READING

The common positioning errors can result in inaccurate blood pressure measurement. Figures shown are estimates of how improper positioning can potentially impact blood pressure readings.

Sources:
2. Nation A. The Importance of Accurate Blood Pressure Measurement and The Permanente Journal Summer 2009 Volume 13 no. 3: 51

This 7 simple tips to get an accurate blood pressure reading was adapted with permission of the American Medical Association and The Johns Hopkins University. The original copyrighted content can be found at https://www.ama-assn.org/patient-blood-pressure measurement.

TARGET: BP

Image sourced from: https://www.ama-assn.org/patient-blood-pressure measurement
Engaging Specialists

Quality metric: BP screening

REVIEW OF SYSTEMS
Review of Systems
Respiratory: Negative for shortness of breath.
Cardiovascular: Negative for chest pain.

Objective

PHYSICAL EXAM
BP 140/68 mmHg | Pulse 62 | Temp(Src) 98.3 °F (36.8 °C) (Oral) | Resp 12 | Ht 5’ 3” (1.6 m) | Wt 172 lb (78.019 kg) | BMI 30.48 kg/m2 | SpO2 97% | Breastfeeding? No

Physical Exam
Constitutional: She is oriented to person, place, and time. She appears well-developed and well-nourished. No distress.
HENT:
Head: Normocephalic and atraumatic.
Neck: Neck supple. No thyromegalgy present.
Cardiovascular: Normal rate, regular rhythm and normal heart sounds.
Pulmonary/Chest: Effort normal and breath sounds normal.
Musculoskeletal: She exhibits no edema.
Neurological: She is alert and oriented to person, place, and time.
Psychiatric: She has a normal mood and affect. Her behavior is normal.

BLOOD PRESSURE SCREENING
BP: 140/68 mmHg (09/25/15 1305)
[BP is normal or controlled.]

BP is normal or controlled.
BP is > or = 120/80 either value, with no h/o HTN. Pt has been inst. to f/u with primary care provider for BP recheck.
BP is > or = 140/90 either value, with a known h/o HTN. Pt has been inst. to f/u with primary care provider for BP recheck.
BP Navigator Referral - place when BP > 140/90

- BP Navigator is a specially trained MA who calls patient based on referral from specialist when BP > 140/90
- Use for *any* patient with or without diagnosed HTN
- This ensures Mercy true “referral” to PCP and has Mercy staff help them make appt or find PCP
Gap reports for managers

- Uncontrolled Hypertension gap reports
- Undiagnosed Hypertension gap reports
- Self monitoring blood pressure program
Best Practice Alert to recheck Blood Pressure in EHR
Engaging patients

- Self Monitoring Blood Pressure work
- Blood pressure report card for after visit summary

YOUR BLOOD PRESSURE REPORT CARD

A is for "ACTIVITY"
Risk Factor: Lack of physical activity - Increased activity is the natural way to improve your blood pressure control and overall health.
Your Goals:  
- Exercise 30-60 minutes most days of the week
- Increase to 60-90 minutes most days of the week to lose weight.

B is for "BLOOD PRESSURE"
Risk Factor: High blood pressure - Your last 3 readings are:
BP Readings from Last 3 Encounters:
09/04/19 132/80
08/01/19 136/82
07/23/19 142/78

Your Goals:  
- Less than 130/80
- Less than 140/90
- Less than 150/90 for some people 60 and over.

You should get your blood pressure checked at every office visit.
Monitor blood pressure at home or store [Time, hourly/daily/weekly: 11039] and bring readings to appointments. It is best to be seated for 3-5 minutes prior to checking your blood pressure.

C is for "CUFF SIZE"
Generally speaking it is better to use a cuff that goes around your upper arm (not your wrist or finger).
A blood pressure CUFF that is too small will make your blood pressure look too high. Your arm circumference is:
- 22-26 cm = pediatric
- 27-34 cm = adult
- 35-44 cm = large adult
- 45-52 cm = adult thigh

D is for "DASH FOOD PLAN" - DIETARY APPROACHES TO STOP HYPERTENSION
What difference does a few percentage points make in hypertension?

**Our performance in the East Community**
- improved from in 2013 65 to 79.8% today
- a *22.76%* improvement from 2013 to 2019.

**What does 22.76% Mean?**

A total of **24,682 patients** moved from uncontrolled to controlled hypertension in those *six years!*
685 Heart attacks and strokes prevented in last 5 years

24,682 patients now in control- Number of patients needed to treat for 5 years to prevent one heart attack or one stroke: 36
3,138 patients in our ACO population identified as high risk ASCVD >30%

Their risk of heart attack or stroke in next 10 years is predicted at >30%
Patients at High Risk for Cardiovascular Disease

Best Practice Alerts Prompt Documentation of Smartphrases

Provider & Nurse Smartphrases Enhance Shared Decision Making and Improve Consistency and Intensity of Treatment
Interventions for High Risk Patients

Results: 2,594 high risk patients (ASCVD ≥ 30%) seen for follow-up

Mercy Clinic East Communities: Treatment Therapy
1/3/17 - 12/31/18

Improvement in all categories

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Baseline</th>
<th>Last Anniversary Visit</th>
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<tbody>
<tr>
<td>Aspirin</td>
<td>18%</td>
<td>58%</td>
</tr>
<tr>
<td>Treatment for Hypertension</td>
<td>65%</td>
<td>94%</td>
</tr>
<tr>
<td>Smoking</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Statin</td>
<td>45%</td>
<td>71%</td>
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Overall ↓8.5% ASCVD Risk
Overall ↓8.5% ASCVD Risk

Measuring impact using the Number-Needed-To-Treat, Mercy’s CVD intervention has potentially prevented:

- **46** heart attacks
- **53** strokes and
- **21** deaths in the East Community
3,138 patients in our ACO population identified as high risk ASCVD >30%

Driving to better goal <130/80

### Blood Pressure Categories

<table>
<thead>
<tr>
<th>Blood Pressure Category</th>
<th>Systolic mm Hg (upper number)</th>
<th>Diastolic mm Hg (lower number)</th>
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<tbody>
<tr>
<td>Normal</td>
<td>Less than 120</td>
<td>Less than 80</td>
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<tr>
<td>Elevated</td>
<td>120 – 129</td>
<td>Less than 80</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 1</td>
<td>130 – 139</td>
<td>80 – 89</td>
</tr>
<tr>
<td>High Blood Pressure (Hypertension) Stage 2</td>
<td>140 OR HIGHER</td>
<td>90 OR HIGHER</td>
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<tr>
<td>Hypertensive Crisis (consult your doctor immediately)</td>
<td>Higher than 180</td>
<td>Higher than 120</td>
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</table>
Driving to better goal <130/80

3,138 patients in our ACO population identified as high risk ASCVD >30%
Driving to better goal <130/80

3,138 patients in our ACO population identified as high risk ASCVD >30%

Current ASCVD risk score: The 10-year ASCVD risk score (Goff DC Jr., et al., 2013) is: 32.8%

Values used to calculate the score:
- Age: 79 years
- Sex: Female
- Is Non-Hispanic African American: No
- Diabetic: No
- Tobacco smoker: No
- Systolic Blood Pressure: 136 mmHg
- Is BP treated: Yes
- HDL Cholesterol: 36 mg/dL
- Total Cholesterol: 151 mg/dL

Recommended follow up plan:
- Statin (moderate to high intensity recommended) continue
- List statin medication from chart and dosage
- Blood pressure: Goal for high risk patients < 130/80, not controlled {Plan; hypertension: 10600}
- Tobacco use: {Tobacco cessation intervention: 10328211}
- Aspirin: {DRESSING; CONTINUE, DC, START: 1052071601}
- Low Sodium diet
- Increase exercise
- Mediterranean diet
Driving to better goal <130/80

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Driving to better goal <130/80