Lessons Learned from Hypertension Program in Kaiser Permanente Northern California

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Kaiser Permanente Provides Health Care for Over 12 Million People

- Washington: 681,253
- Northwest: 636,950
- Northern California: 4,549,951
- Southern California: 4,757,335
- Hawaii: 261,830
- Colorado: 528,580
- Georgia: 314,725
- Mid-Atlantic: 797,408

(VA, MD, DC)
Kaiser Permanente Northern California (KPNC)

Members: 4.5M
Hospitals: 21
Physicians: 9,530
Medical offices: 268

KPNC Hypertension Program – Initiated in 2000
Key Elements to Success

- Hypertension Registry
  Validated and comprehensive

- Clinic Level Performance Feedback
  Facilitates operational and system-level change, transparent, and widely visible

- Treatment Algorithm
  Based on evidence-based guidelines, simple and implementable

- Medical assistant visits for BP measurements
  Appropriate use of ancillary staff skills and reduced barriers to patients

- Single-pill combination therapy
  Increased efficiency and increased adherence

Jaffe et al. JAMA. 2013;310(7):699-705
System-wide Hypertension Registry

- Elements used for identification
  - Outpatient diagnostic codes on a quarterly basis
  - Pharmaceutical utilization data
  - Hospitalization records
- Selection criteria: Two HTN diagnosis in 24 months
- Clinical exclusions: frailty, hospice, SNF, pregnancy, ESRD
- Validated accuracy through random chart reviews
- Registry grown from 350,000 to more than 650,000 individuals
- Identified prevalence of hypertension increased from 15% to 27% of adult membership

Evidence-based HTN guidelines

- System-wide evidence-based guidelines updated every 2 years
- Diverse guideline development team: primary care, specialty physicians (cardiologists, nephrologists, endocrinologists), pharmacists and evidence-based methodologists.
- Simplified drug treatment algorithm
- Aligned with other organizational guidelines to ensure consistent educational messages
- Distributed in many forms
Quality Performance Metrics

- In 2001, internal HTN control reports developed for quality improvement.
- Outpatient BP values obtained from ambulatory setting, excludes ED, procedures, inpatient.
- Measures based on same inclusion/exclusion criteria as NCQA/HEDIS
- Initially a “manual” registry until KPNC’s adoption of an electronic health record in 2008
- Identified best practices or innovations from high-performing medical centers and disseminated system-wide.
- Focus on performance improvement efforts at clinic-level and clinician-level.

Medical Assistant BP Visits

- Created in 2007 as an alternative to traditional office visit with physician
- Visits schedule 2-4 weeks following a BP medication adjustment
- No co-payment
- MA trained using standardized materials and underwent periodic assessments.
- Measured BP forwarded to PCP and/or pharmacist for further action.
Single-pill Combination Therapy

- Incorporated into our evidence-based guidelines in 2005.
- Therapy promoted by both patient and physician education materials.
- Improved adherence
- Lower patient cost
- Improved blood pressure control

It Takes a Village to Control Blood Pressure at KPNC, 2001 - 2018

Telehealth, Lifestyle Coaching and Future Opportunities

- COVID-19 has increased virtual care.
- Home BPs accepted/encouraged.
- Increased patient and provider training about new options for BP.
- New workflows and tech tools to support home BPs.
- Remote options may be key to younger, busy patients' engagement.
- Culturally appropriate lifestyle coaching was better than usual care in controlling BP among Black patients with persistently high BP.

Thank you!