Taking Cardiovascular Care HOME: Hypertension Outreach and Management Enhancement

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Team Members:
Nina J. Park, MD
Jeffrey G. Guterman, MD, MS
Debra Duran, RN MBA
Laura Myerchin Sklaroff, MA
Sandra Gross-Schulman, MD, MPH, RN

Mid Valley CHC, San Fernando CHC, El Monte CHC, Harbor-UCLA MC Staff
and LAC DHS Nursing Education
TCC HOME: SMBP Data Process Flow

Patient Collects SMBP and Pulse at Home

(Future State) BP Cuff directly transmits data to ORCHID

Patient enters data into ORCHID via MyWellness Portal

ORCHID (EHR)

ELM (Registry)

ELM Analytics

Proxy collects data from mechanism and records it into ORCHID

Professionally measured BP and Pulse at clinic visit input into ORCHID

Nurse Reviews Data

Communication of medication titration decision to patient and provider via secure mechanism (e.g., telephone, portal, and/or ORCHID message)

SMBP captured as distinct elements in EHR

LAC DHS IDPC-approved HTN Standardized Procedures

Patient Communicates with a Mechanism for Data Capture:
- Patient calls LAC DHS staff
- LAC DHS staff calls patient
- Patient completes video visit
- Patient brings in BP device, data is downloaded from device

Patient enters data into ORCHID via MyWellness Portal

ORCHID (EHR)

ELM (Registry)

ELM Analytics

Communication of medication titration decision to patient and provider via secure mechanism (e.g., telephone, portal, and/or ORCHID message)
Our Desired Future

• Enterprise-Wide Spread
  – By 2023, the number of empaneled patients with controlled HTN will increase 10% compared to 2021 rates.

• A New, Better Standard of Care
  – TC3 as model for future Standardized Procedure-based care
    • Heavy front-line staff participation
    • Nurse-designed and led training and elbow support for rollout

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Current Barriers to Desired Future
(Why It’s Not Possible. . . Yet)

• COVID-19
• Reallocating funds for expansion without outcomes data
• Time to adapt to cultural shift
• Ramp up period needed for SP development, training, and elbow support
• Redistribution of titration nurse duties
Learnings That Inform Our Desired Future

Bright Spots & Accomplishments

• RNs working at the top of license
• Majority of Patients Reached BP Goal in Less Than 2 Visits
• Patient and Staff Satisfaction
• Fast Pivot to Remote Care in Response to COVID-19
• Creating documentation as a by-product of data collection

Activities We’ll Continue Doing

• Didactic Training and Elbow Support
• Regular All-Team Meetings
• In-Person & Virtual PDSA Cycles
• Data-Informed Decision Making
**Titration Decision**

**Is the BP at target?**
- Yes
- No

*If Yes, go to Education tab*

**Is one of the BP’s used for this decision a clinic measured BP?**
- Yes
- No

**Wait at least 5 minutes and repeat BP**

**Repeat BP:**
- [ ] 130 / 80
- [ ] 160 / 90

**Average BP (SMBP 1, SMBP 2 and Repeat BP)**
- [ ] 150 / 85
- [ ] 80 / 60

**Is the repeat BP in target range?**
- Yes
- No

*If Yes, go to Education tab*

**Has the patient started any new OTC or prescribed medication within the past 2 days and taken a dose in the last 24 hours?**
- Yes
- No

**Name of Drug:**

**Did the patient skip any of their BP medications in the last 24 hours?**
- Yes
- No

**Have the patient take their medications, wait 30 minutes and re-check BP**

**Re-checked BP**
- [ ] 120 / 80
- [ ] 150 / 90

**Is re-checked BP in target range?**
- Yes
- No

*If Yes, go to Education tab*
Performed On: 12/6/2020 14:25 PST by AMBRNTITRA, Amb RN with Titration

Last Dose Adjustment and Target BP
When was the last dose adjustment?: 10/1/2020 PDT
What is the target BP?: Provider specified:
Systolic Blood Pressure: 140 mmHg
Diastolic Blood Pressure: 70 mmHg

Symptoms
Does the patient have symptoms of orthostasis?: Yes
Description (e.g., feel the room is spinning, dizziness, lightheaded or feeling of fainting, fainting): dizziness
Symptom onset: 4
Symptom onset time: Days ago
Pattern of symptoms: Episodic; how long does each episode last
Episode time: 10
Episode duration: Minutes
Provoking factors: head movement
Associated symptoms: none
Are you able to obtain orthostatic vital signs now?: Yes • perform orthostatic vital signs (if patient unable to stand safely, use sitting position)
Are the orthostatic vital signs results consistent with orthostasis?: No • continue assessment; inform provider of patient complaints
Is the patient pregnant or wants to become pregnant?: No
Has the patient developed an intractable cough?: No
Are there new Cr and K results since the last dose adjustment?: Yes
Baseline Creatinine: 0.75 mg/dL
Baseline Creatinine Date: 8/26/2019 PDT
Latest Cr: 0.8 mg/dL
Creatinine Percent change: 7%
Baseline Creatinine 2: 0.75 mg/dL
Has the latest Cr increased by more than 30% from baseline?: No
Potassium Level: 4.0 mmol/L
Is the latest K more than the upper limit of normal (ULN): No

Orthostatics
BP Position 1: Sitting
Systolic BP Position 1: 150 mmHg
Diastolic BP Position 1: 92 mmHg (H)
Pulse BP Position 1: 64 bpm
Thinking Beyond TC3

• Opportunities to Expand Standardized Procedure-driven care
  – Chronic Disease (e.g., Dyslipidemia, Diabetes)

• Use the “Global – Local” strategy for future QI projects
  – Global strategy and tools
  – Local implementation driven by collaborative PDSA cycles

• Incorporate other patient captured data into the EHR
  – Current: BP, Pulse, Weight, O₂ Sat
  – Future: Glucose
Benefits of Achieving Our Desired Future

• Better Patient Health Outcomes

• Improved Clinic Workflow and Team Morale

• Better Patient-Care Team Relationships

Patient Describing Nurse HTN Titration Phone Visits:
“It’s professional. Taking care of me very well and asked me many questions about my health. I felt good because I thought they didn't care. But now I realized they were really caring and I was very happy about their care. It's convenient, you don’t need to be in traffic, spending time in waiting room, or wearing a mask. This saved me from missing my appointment and calling out of work.”

Nurse Describing the TC3 Project:
“I am confident using HTN Protocols. Giving patients blood pressure machines for self monitoring is very effective. I think this is great so far for patient outcomes.”

Two Medical Director Describing the TC3 Project:
“This clinic reduces the burden on the limited clinic slots available for providers.”

“It’s great that we are acknowledging that our RNs are capable of running these clinics.”
Challenges If We Don’t Move Forward

• Missed opportunities to improve patient health outcomes
  – Controlled HTN
  – Providers freed up to see other patients

• Not yet at self sustaining “tipping point”
  – Lost investment in nurse training and experience
  – Lost momentum in system-wide care delivery changes
  – Without spread support will likely revert to ”old usual care”
Shaping Our New Normal

- Investment in new approaches to care delivery
  - Nurse driven care via SP
  - Tele-health support
  - Patient devices for data capture

- Balanced team-based care
  - “Gray zone” between MD and RN responsibility
  - Remote vs. In-Person Care

- Investment in data capture and reporting
Thank You

Los Angeles County Department of Health Services

Contact:
Laura Myerchin Sklaroff
Lsklaroff@dhs.lacounty.gov
747-210-3388