The Office of the National Coordinator for Health Information Technology

EHR Innovations for Improving Hypertension Challenge

Winners and Phase 2

January 23, 2015

The Office of the National Coordinator for Health Information Technology

Agenda

Million Hearts Blood Pressure Protocols – Hilary Wall, MPH

Green Spring Internal Medicine – Holly Dahlman, MD, FACP

Vibrant Health Family Clinics – Christopher Tashjian, MD, Mary Boles, LPN, Rosanne Matzek, Care Coordinator

Challenge Phase 2 – Adam Wong, MPP

The Office of the National Coordinator for Health Information Technology

Key Components of Million Hearts®

Keeping Us Healthy
Changing the environment

Aspirin when appropriate

Blood pressure control

Cholesterol management

Smoking assessment and treatment

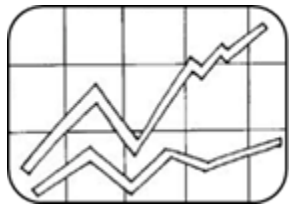
Health Disparities

Excelling in the ABCS
Optimizing care

Focus on the ABCS

Health tools & technology

Innovations in care delivery



Hypertension Control is Complicated

- Patient non-adherence to medications, lifestyle changes
- Multiple medication choices, dosages
- Up-titration and follow-up timelines
- Patient resistance to treatment
- Therapeutic inertia
- White-coat hypertension, resistant hypertension

Improved blood pressure control = fewer heart attacks and strokes

Standardized HTN Treatment Protocols

AKA – algorithms, care pathways, care plans

Adopting a protocol:

- Sends a strong signal to clinical staff that HTN control is a priority
- Reduces clinical variability
- Better enables all members of the health care team to titrate/adjust meds
- Can be incorporated into EHRs/CDS tools
- Efficient and cost-effective selection of meds

Evidence-Based Sample Protocols

http://millionhearts.hhs.gov/resources/protocols.html

- U.S. Department of Veterans Affairs
- Kaiser Permanente
- Institute for Clinical Systems Improvement
- NYC Health and Hospitals Corporation
- Million Hearts® website includes:
  - Brief description of the key components in each protocol
  - Supplemental materials provided to guide control efforts

IT Toolkit for Hypertension Control

Holly Dahlman, MD, FACP
Green Spring Internal Medicine, LLC
Lutherville, MD

Objective

* To demonstrate how our small practice PCMH uses a team-based approach, combining IT tools with evidence-based medicine, to improve hypertension control.

Our Stats: NQF 0018

* 2011: 47.71%
* 2012: 66.04%

2013: 80.85%

2014: 78-79%

Our Team

* One physician
* One nurse practitioner-care manager (1/3 of FTE)
* 3 CMAs
* 1 Medical Office Assistant
* 2700 patients seen in 3 years, most > high school education, diverse cultural and economic backgrounds

Our Practice Model

* Level 3 PCMH, part of MMPP Pilot since 2011
* Team-based
* Vision: “to equip, empower and engage patients in their own healthcare”

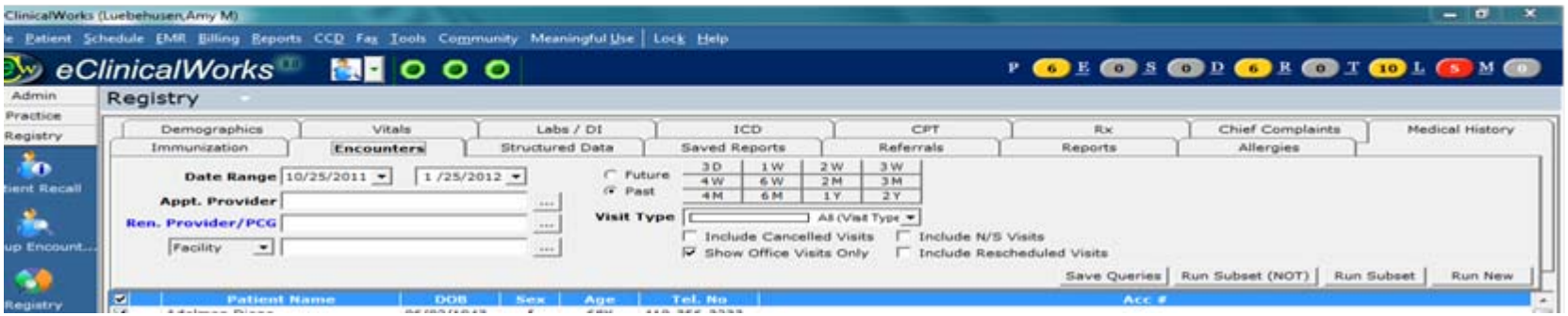
Steps to HTN Control

THREE R's

* **Registries**: uncontrolled +/- unseen HTN patients
* **Resources**: DASH Diet
* **Readings**: home BP recorded, reported & reviewed

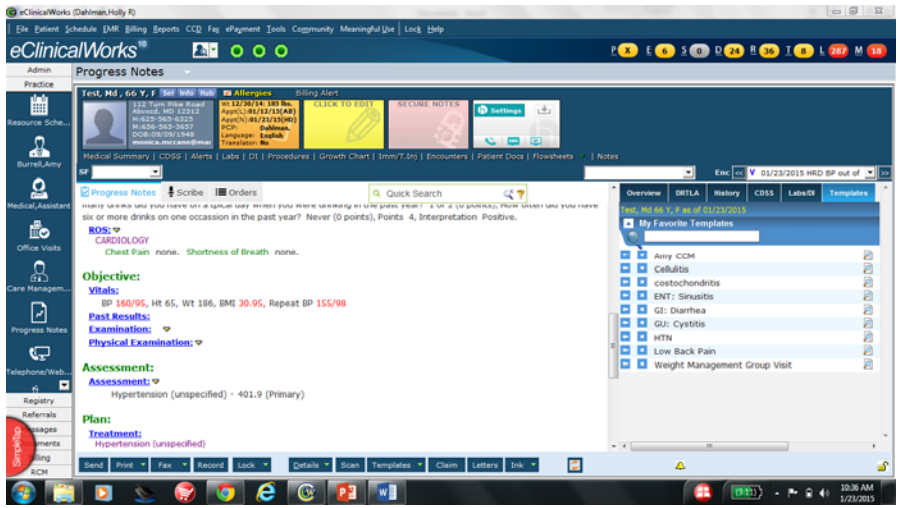
* Identify high risk patients
* Web message via Portal
* Phone call outreach
* vMessenger

Registry


ClinicalWorks (Luebehusen,Amy M)
Patient Schedule EMR Billing Reports CCD Fax Tools Community Meaningful Use Lock Help
eClinicalWorks
Admin
Practice
Registry
Registry
Demographics
Vitals
Labs / DI
ICD
CPT
Rx
Chief Complaints
Medical History
Immunization
Encounters
Structured Data
Saved Reports
Referrals
Reports
Allergies
Date Range 10/25/2011 1 /25/2012
Future
Past
3D 1W 2W 3W
4W 6W 2M 3M
4M 6M 1Y 2Y
Appt. Provider
Ren. Provider/PCG
Facility
Visit Type
All (Visit Type
Include Cancelled Visits
Include N/S Visits
Show Office Visits Only
Include Rescheduled Visits
Save Queries
Run Subset (NOT)
Run Subset
Run New
Patient Name
DOB
Sex
Age
Tel. No
Acc #

Blood Pressure Measurement and Recording

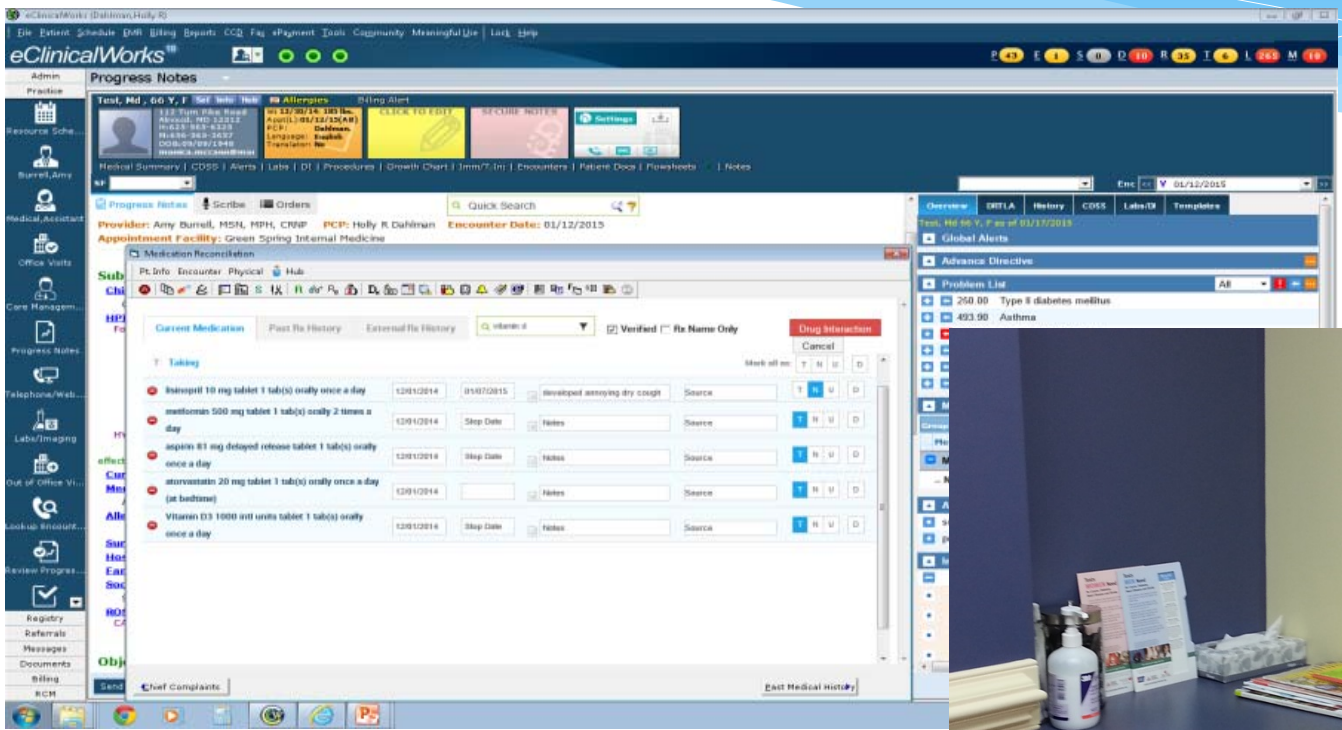
* Red text alerts for abnormal BP value

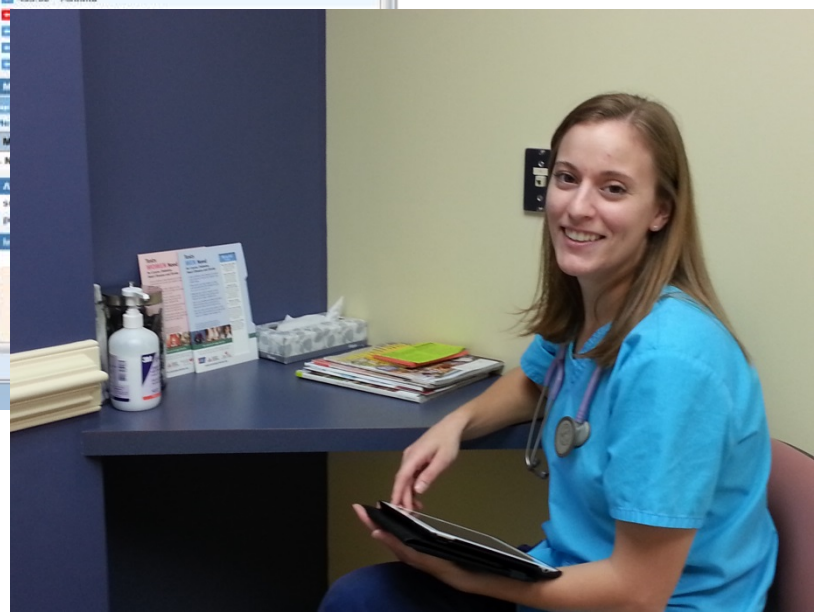


Protocols

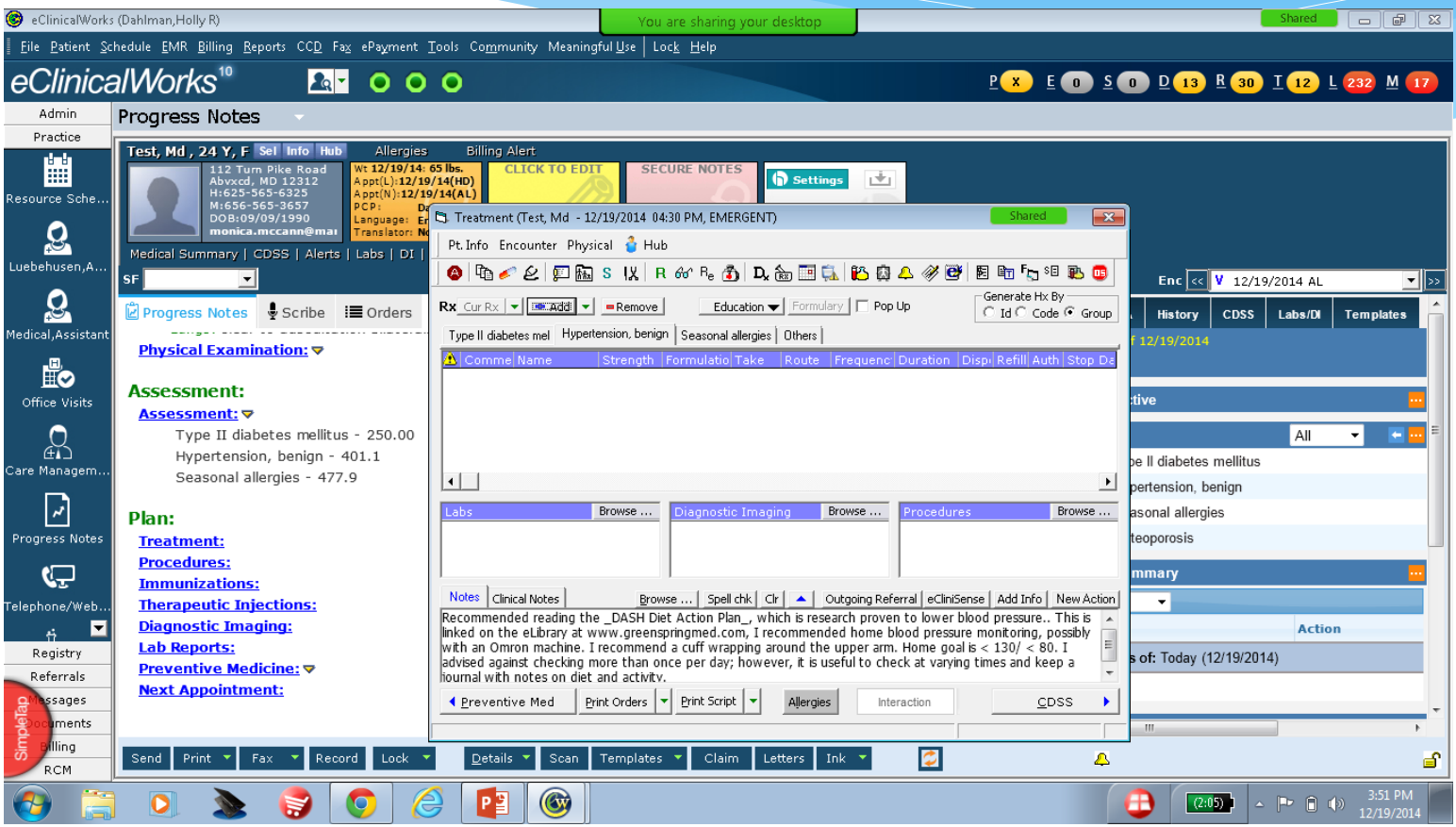
* Medication Reconciliation at every visit
* Browse section to pull DASH diet and self-monitoring instructions (patients given copy of visit note)
* Evidence-based Rx Favorites

Med Rec w/ Adherence Notes

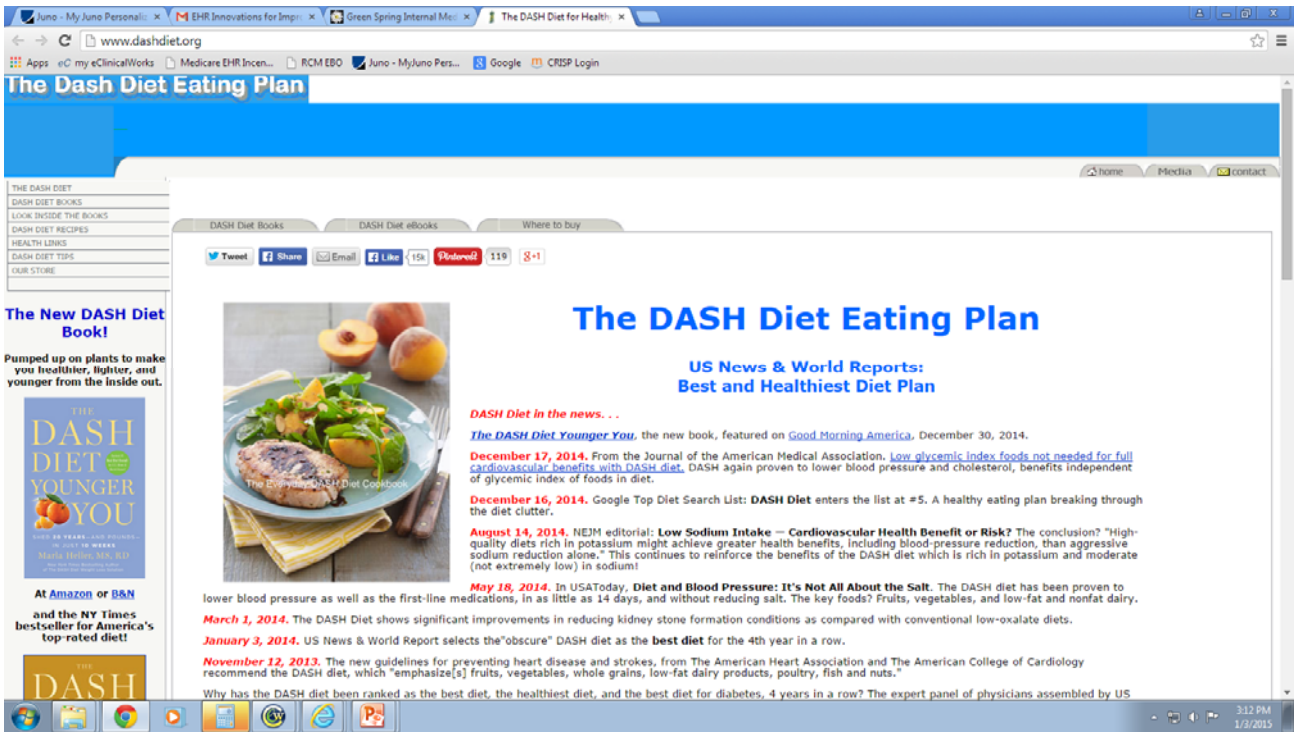




Browse Section – Detailed Instructions on DASH/Self-monitoring

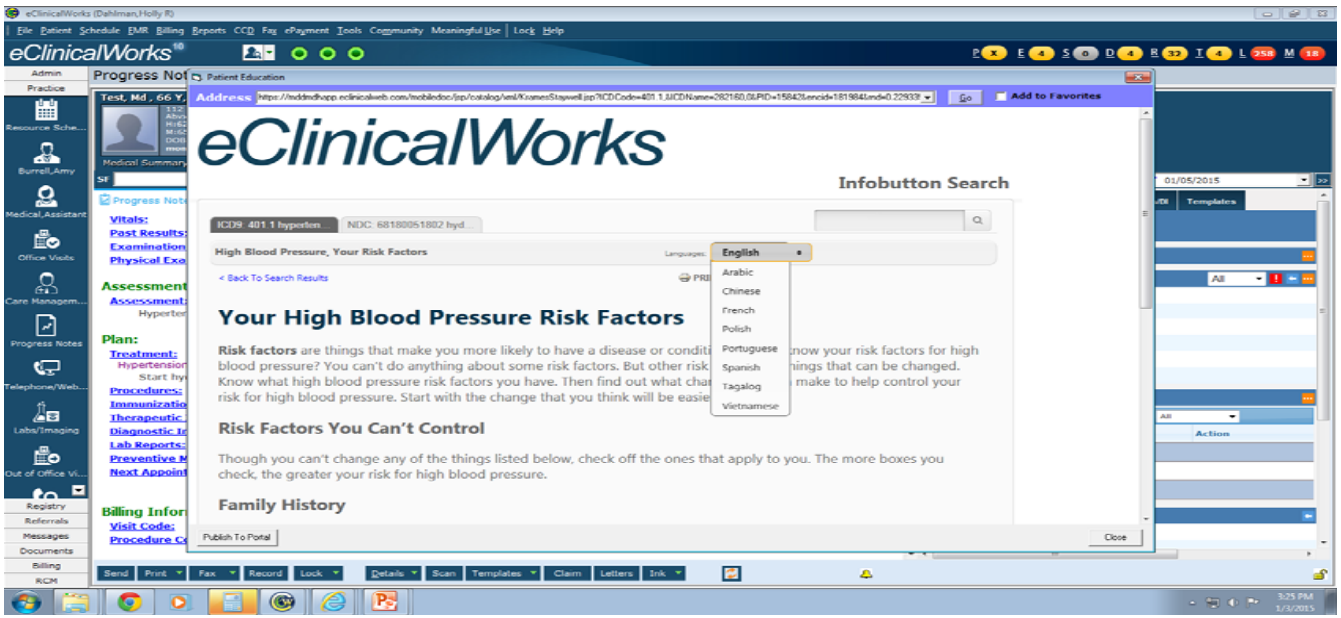


DASH Diet weblink



Patient Education

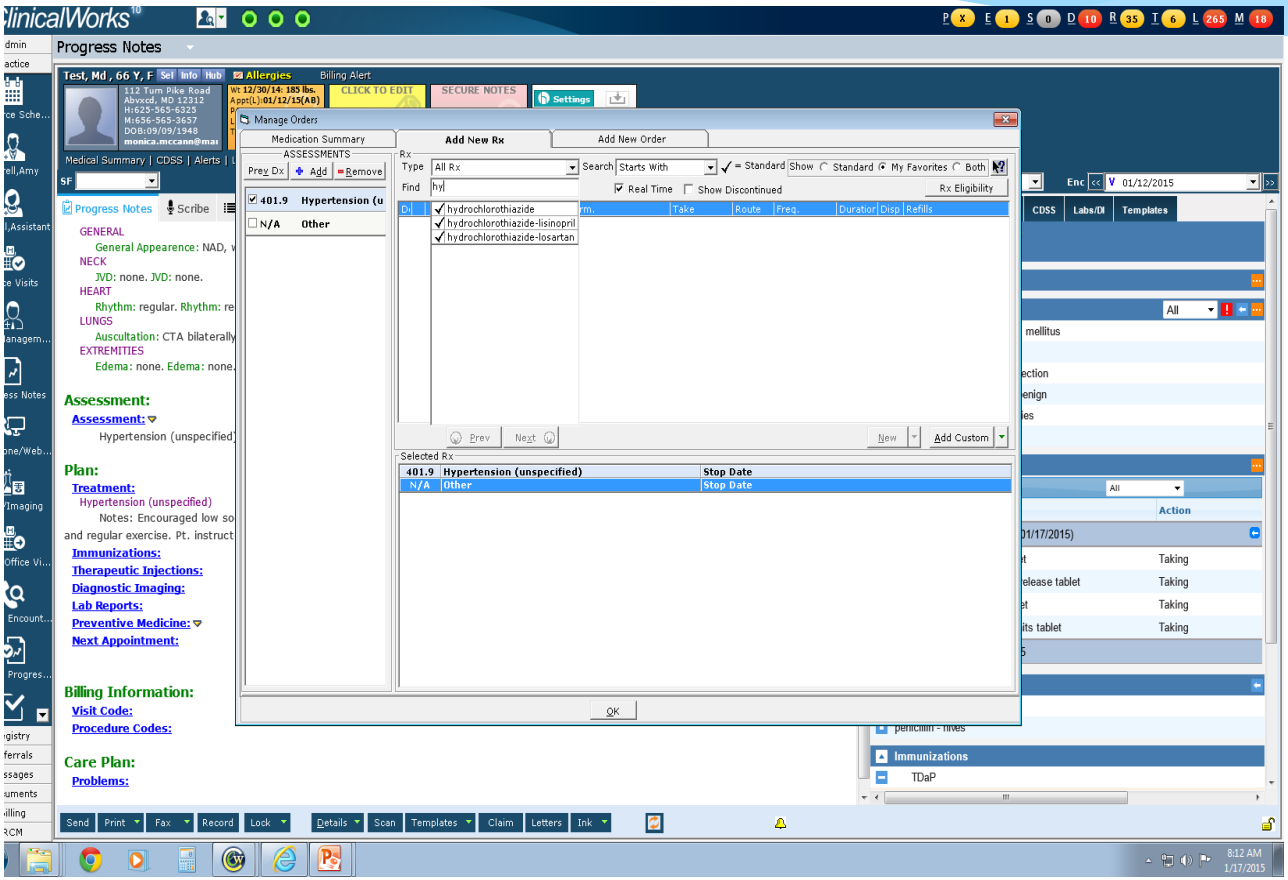
* Multilingual patient education: in print or via Portal



Rx Favorites Based on Evidence-Based Protocol

* Hypertension/low K, treatment-naïve: check plasma renin activity and aldosterone to screen for Conn Syndrome
* Hypertension on high risk meds: If BP < 140/<90, order basic metabolic panel, recommend DASH diet (except in ESRD or with hyperkalemia) and set follow-up visit in 3 months
* Hypertension, < 160/<100 and non-sulfa allergic: DASH DIET and HCTZ 12.5 mg daily with BMP in 2 weeks and f/u BP check then
* Hypertension >160/>100: DASH DIET and add lisinopril/HCTZ 10/12.5 mg daily with BMP in 2 weeks and f/u BP check then. If h/o ACE-I cough, losartan 50/12.5 mg daily (or equivalent ARB on formulary)

Rx Favorites



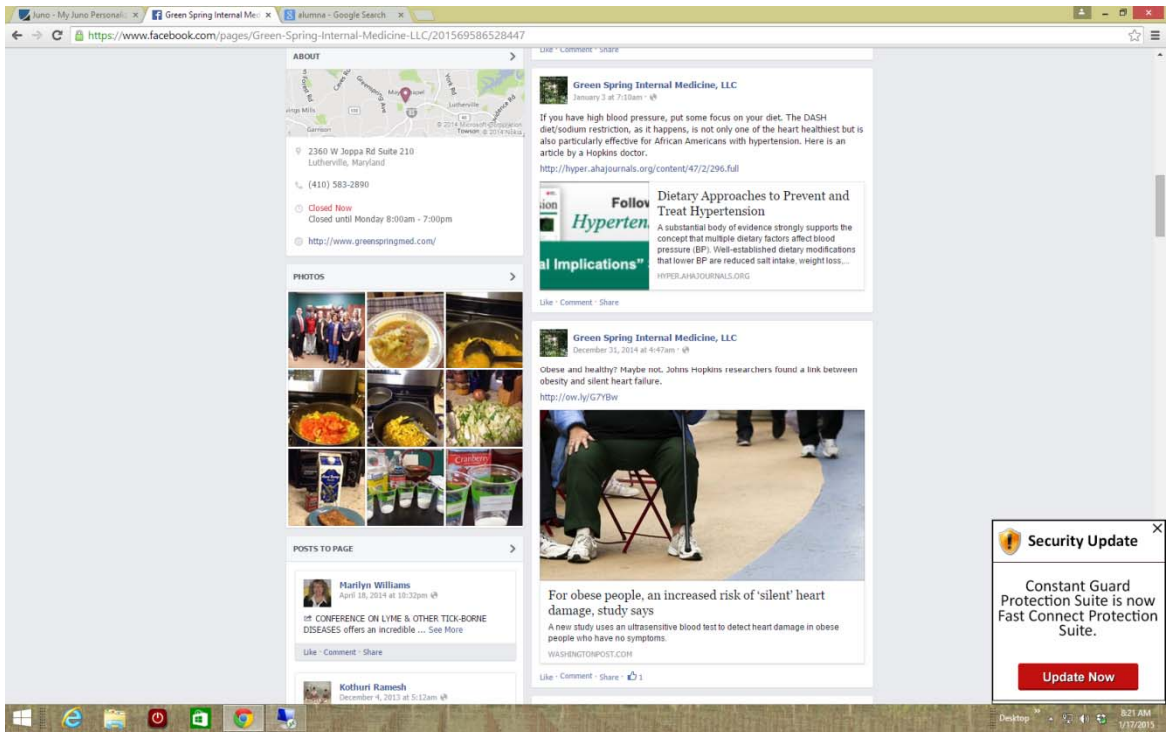
Readings: Patient Self-Efficacy

* Coaching on self-monitoring
* Pts report home BP readings via paper, Portal, Fax
* Review of home BP log/journal with clinician feedback
* Motivational interviewing on lifestyle changes
* Adding medication per protocol
* Reinforcing ongoing monitoring w/scheduled f/u

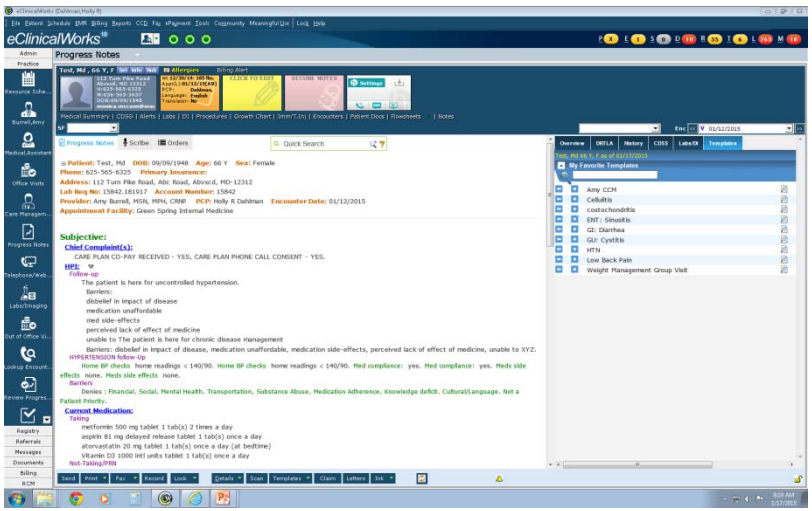
Other Tips and Tricks

* eClinisense
* Healow App tracking/reporting
* Care Plan Template
* Facebook recipes/articles
* Twitter @GreenSpringMed
* Pinterest @GreenSpringMed

Green Spring Internal Medicine on Facebook



Newest Addition: Care Plan Template



Summary

* The 3 R's
  (registries, resources, reporting)

* Population tools
* Resource tools
* Self-management and efficacy tools

Acknowledgements

* HHS/ONC/CDC
* Team Early Adapters
* Dr. Niharika Khanna
* MMPP
* Maryland DHMH
* MHCC
* Delmarva Foundation
* CRISP
* Aledade, Inc

Vibrant Health
FAMILY CLINICS

Doing Our Share To Save 1,000,000 Lives

Presented by:
Chris Tashjian, MD
Mary Boles, LPN
Rosanne Matzek, Care Coordinator
Vibrant Health Family Clinics

Who is Vibrant Health?

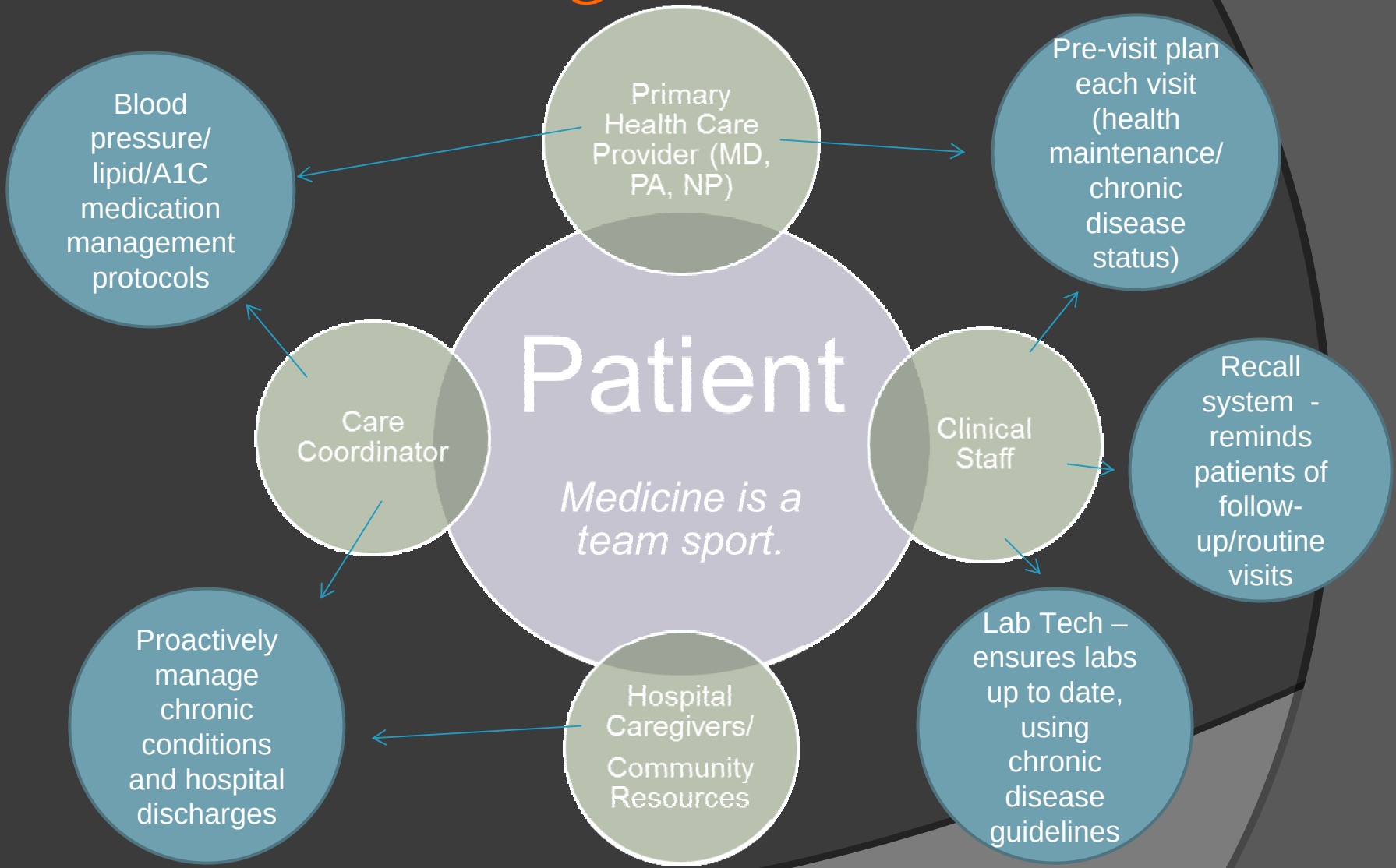
"Saving the lives of our patients by helping them learn about healthy lifestyle changes, good nutrition, setting goals, caring about themselves and adjusting medications are some things we take pride in."

VIBRANT HEALTH IS…

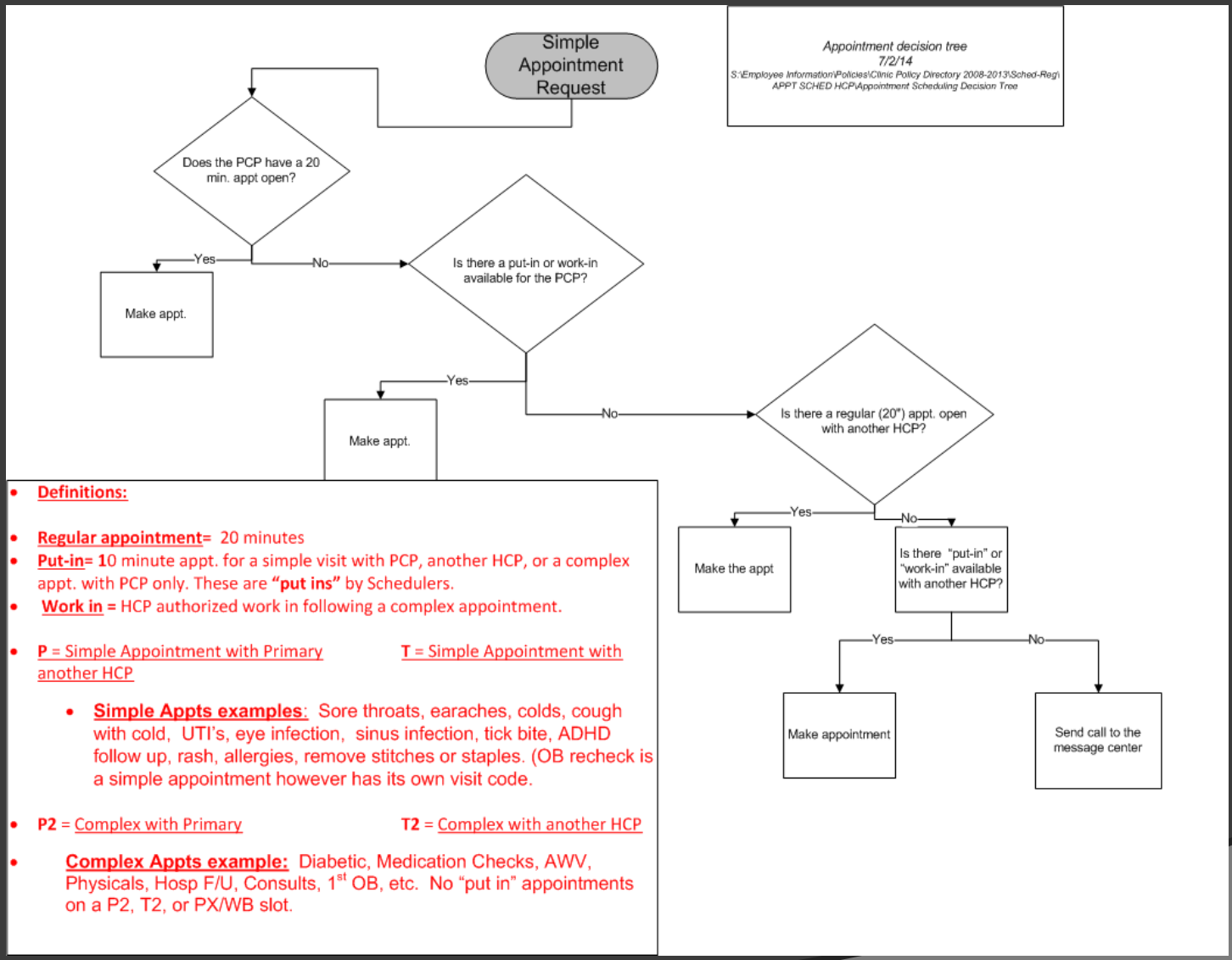
- Our Clinic staffs Family Practice, Internal Medicine, Pediatrics, General Surgery, OB/GYN, ENT and Cardiology clinicians on site.
- Patient Care Team Members
  - Provider
  - Medical Assistant
  - Care coordinator
  - Midlevel
  - Front Office Staff
  - Others
- NCQA Certified PCMH since 2013
- 65,000 patient visits annually

Improvement Philosophy

Innovative Changes

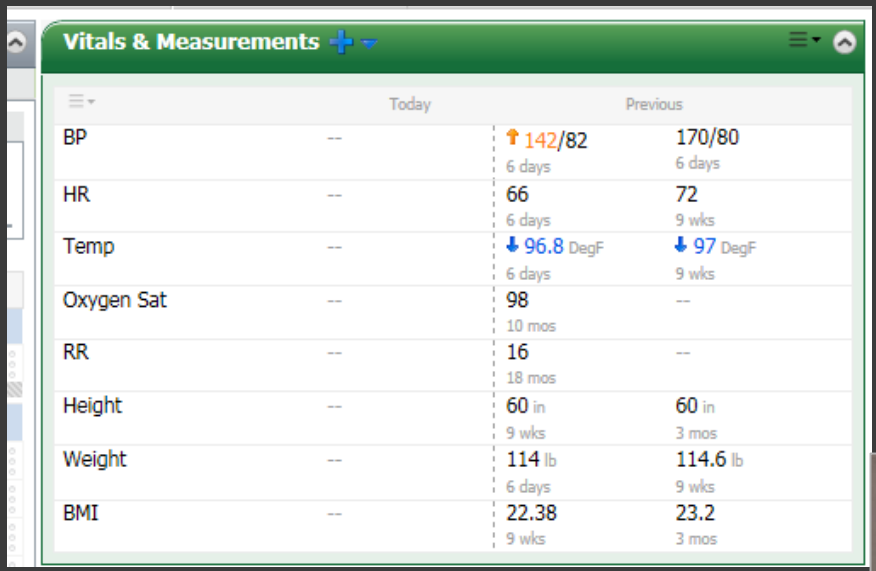


Access to Care and Your Provider



"If you care enough to call, we care enough to see you." Choosing a Primary Provider is key to access and continuity.

Blood Pressure Tracking

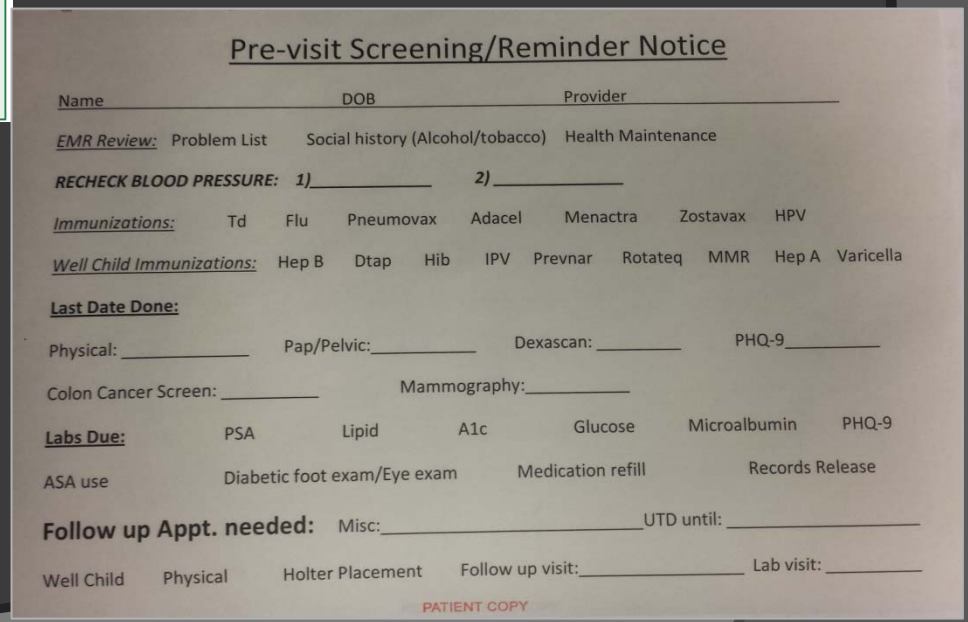


Vitals & Measurements

	Today	Previous
BP	--	142/82 (6 days)	170/80 (6 days)
HR	--	66 (6 days)	72 (9 wks)
Temp	--	96.8 DegF (6 days)	97 DegF (9 wks)
Oxygen Sat	--	98 (10 mos)	--
RR	--	16 (18 mos)	--
Height	--	60 in (9 wks)	60 in (3 mos)
Weight	--	114 lb (6 days)	114.6 lb (9 wks)
BMI	--	22.38 (9 wks)	23.2 (3 mos)

Our EHR Summary Screen includes BP readings and other vitals in an area of high visibility. It also indicates if the readings are high or low.

Each visit to our clinics are pre-visit planned. The clinical staff does a brief chart review on each patient and notates pertinent information on the "PVP" Sheet to ensure the information is covered at their visit.



Pre-visit Screening/Reminder Notice

Name _____ DOB _____ Provider _____

EMR Review: Problem List Social history (Alcohol/tobacco) Health Maintenance

RECHECK BLOOD PRESSURE: *1)*_____ *2)*_____

Immunizations: Td Flu Pneumovax Adacel Menactra Zostavax HPV

Well Child Immunizations: Hep B Dtap Hib IPV Prevnar Rotateq MMR Hep A Varicella

Last Date Done:

Physical: _____ Pap/Pelvic:_____ Dexascan: _____ PHQ-9_____

Colon Cancer Screen: _____ Mammography:_____

Labs Due: PSA Lipid A1c Glucose Microalbumin PHQ-9

ASA use Diabetic foot exam/Eye exam Medication refill Records Release

Follow up Appt. needed: Misc:_____UTD until: _____

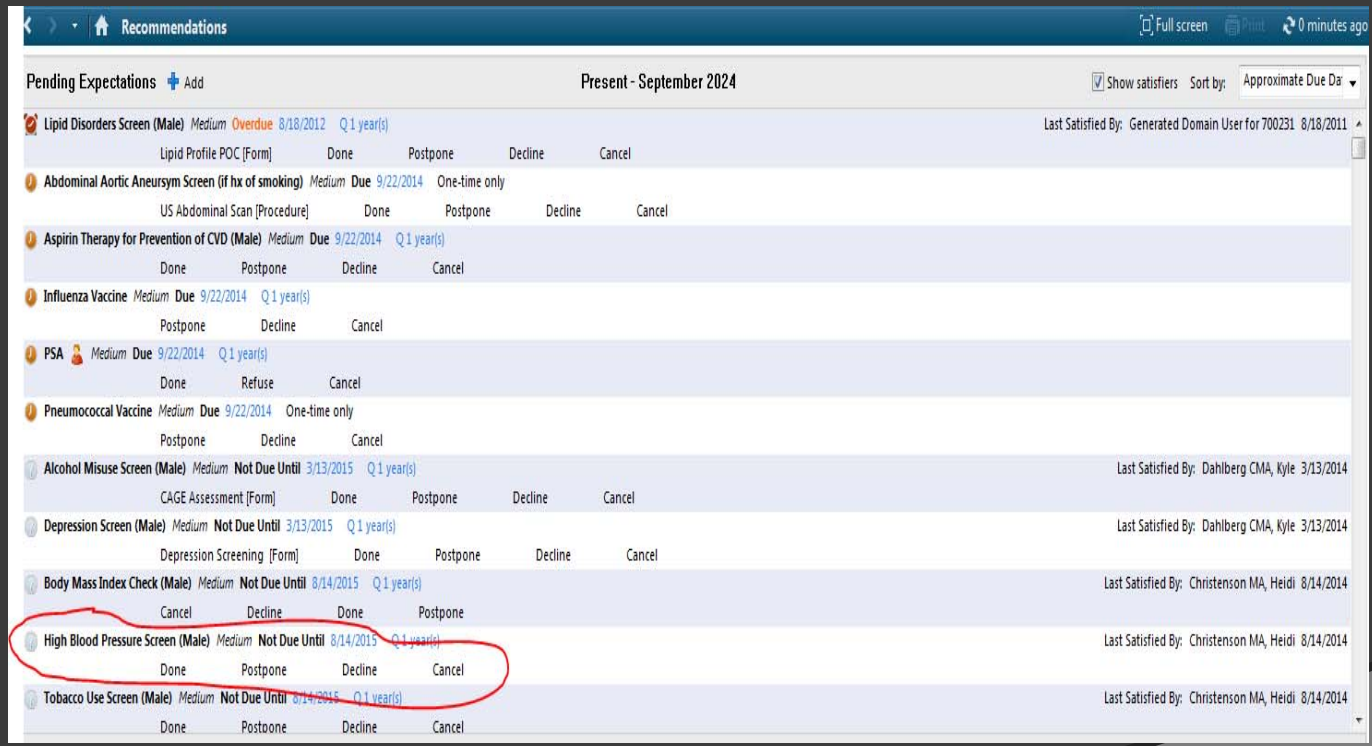
Well Child Physical Holter Placement Follow up visit:_____ Lab visit: _____

PATIENT COPY

Blood Pressure and Visit Follow-Up

Patient reminders and accountability

- **EMR Recommendations Page**



Having the EHR to remind us of needed services is essential. We use it at each patient visit as well as for reminder letter process.

Communication is Key

From: Hamilton RN, Sarah
To: Goblirsch MD, Gregory;
Sent: 7/21/2014 5:22:24 PM CDT
Subject: Chronic Disease Management

Pt. appears on **GTG HTN** pt. panel as out of parameters for optimal control as his last BP was elevated. 145/89 when recheck extra-large cuff. Last seen 5/27/2014 for back pain, last HTN visit was 1/15/2014. Did start HCTZ 25 mg at that time, only took month (only sent in for 30 days with no refills). Is also taking losartan 100 mg. Would you like to restart HCTZ? He would be ag starting an additional med. Would recheck BMP and BP 1 month after starting. Did refill losartan for 30 days only.

The EHR messaging function allows care coordinators and other staff to communicate with providers more efficiently.

Solid and Consistent Reminder Process

We've used our EHR to create a reminder system for our patients. When orders are placed a reminder is created that will tell us when patients are due for services. Then we can send letters to remind the patient.

From: [redacted]
To: [redacted]
Sent: 12/03/2013 12:22:26 PM CST Show up: 01/03/2014 9:00:00 AM CST
Subject: HTN
Due Date/Time: 01/03/2014 9:00:00 AM CST

Return to clinic for HTN/med check in 1 month per TFS
check to see if labs are due

Addendum by [redacted] on January 03, 2014 12:08:13 PM CST (Verified)
Sent letter #1 for HTN
No further contact will be made with the patient regarding this appt. If appt is not completed in two weeks forward to the CC for further follow up.

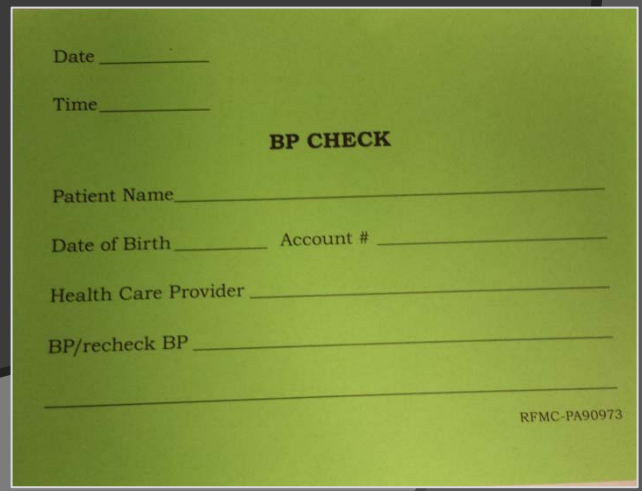
Addendum by [redacted] on January 17, 2014 1:20:17 PM CST (Verified)
Appt Completed

Charted Date:	December 03, 2013 12:22 PM CST
Subject / Title:	HTN
Performed By:	Schultz , Delite on December 03, 2013 12:22 PM CST
Visit Information:	2246292, Vibrant Health Family Clinics, Outpatient, 12/3/2013 - 12/5/2013

Not electronic but still effective…

Blood pressure magnets outside of the exam room door remind us to recheck elevated blood pressures.

As part of our pre-visit planning we fill out BP slips for all patients who have orders for repeat blood pressure checks. These slips are also used for walk-in free blood pressure checks.


Date _____

Time _____

BP CHECK

Patient Name _____

Date of Birth _____ Account # _____

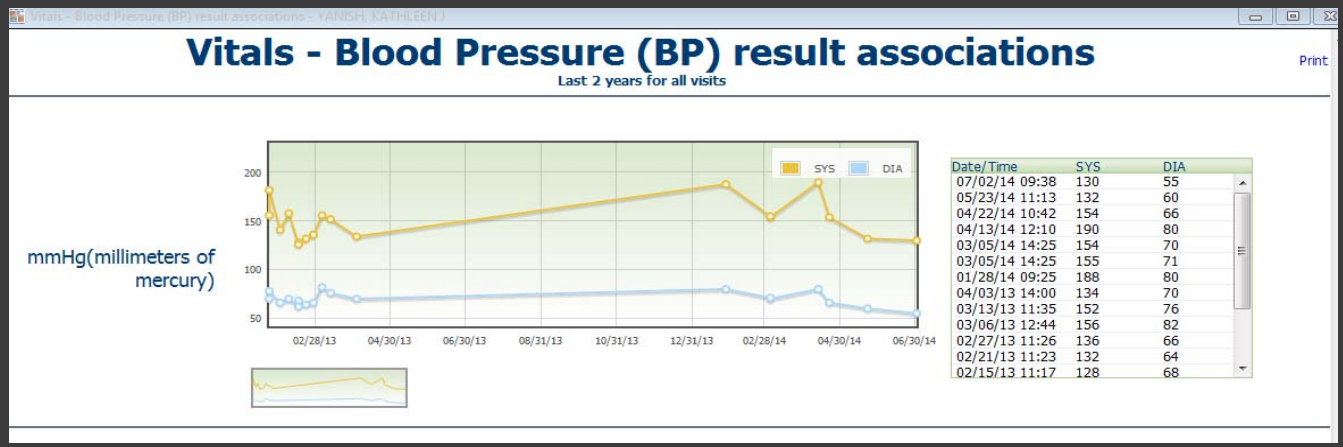
Health Care Provider _____

BP/recheck BP _____

_____

RFMC-PA90973

Patient Engagement



Our EHR provides a graphing feature that allows us to share with our patients their BP information so they can see how interventions or changes have made a difference. Visuals are important!

We have challenged our staff to use *every* patient encounter as an opportunity to recheck blood pressures and provide appropriate patient education; this keeps the patient's actively involved in managing their health.

Why Does My Blood Pressure Matter?

- High blood pressure (hypertension) is a leading cause of heart disease and stroke in the United States.
- High blood pressure causes or contributes to nearly 1,000 deaths per day.
- When your blood pressure is high you are 4 times more likely to die from a stroke and 3 times more likely to die from heart disease.

The River Falls, Ellsworth, and Spring Valley Clinics were recently honored to receive The Million Hearts Award; honoring the work we have done with our patients to improve blood pressure control. This is part of a national initiative to prevent 1 million heart attacks and strokes by 2017. To help our patients improve their blood pressure control we provide an opportunity for free blood pressure checks.

http://www.cdc.gov/

Patient Education

High Blood Pressure (Hypertension)

What Does High Blood Pressure Mean?

High blood pressure is often called a "silent killer", affecting all age groups, because it may not cause noticeable symptoms. Many people are unaware they have high blood pressure until other medical concerns arise. Having elevated blood pressure puts you at risk for serious health problems including: heart attack, stroke, kidney disease and heart failure.

The good news is you can manage your blood pressure with lifestyle changes. Losing weight, eating healthy and exercising daily can improve your blood pressure and reduce your risk of other health complications. In some cases, these changed may not be enough depending on one's risk factors or family health history. Your healthcare provider may discuss starting a medication to assist in lowering your blood pressure.

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Facts About High Blood Pressure

Feeling okay doesn't not mean your blood pressure is under control.

You can't always tell if your blood pressure is elevated. This is why it is important to check your blood pressure regularly and keep track of your readings. If you notice that your blood pressure is consistently elevated, you should make an appointment your with your Health Care Provider.

- HTN & BP Measuring (ROSEBRESLIN)
- HTN Diet (ROSEBRESLIN)
- HTN Limiting Sodium (ROSEBRESLIN)
- HTN Medication (ROSEBRESLIN)
- HTN Sample Menu (ROSEBRESLIN)
- HTN TLC to lower BP (ROSEBRESLIN)
- INR Instruction Sheet (ROSEBRESLIN)
- Tobacco Cessation (ROSEBRESLIN)
- Having Ear Troubles (ROSEBRESLIN) (ROSEBRESLIN)
- How Can I Lower My Cholesterol? VHFC 2014 (ROSEBRESLIN)

We have worked hard to create new or modify existing patient education documents that are available through the EHR. These documents serve as good conversation starters and impress the importance of good blood pressure control to the patients.

Innovative and Fun Ways to Encourage BP Rechecks

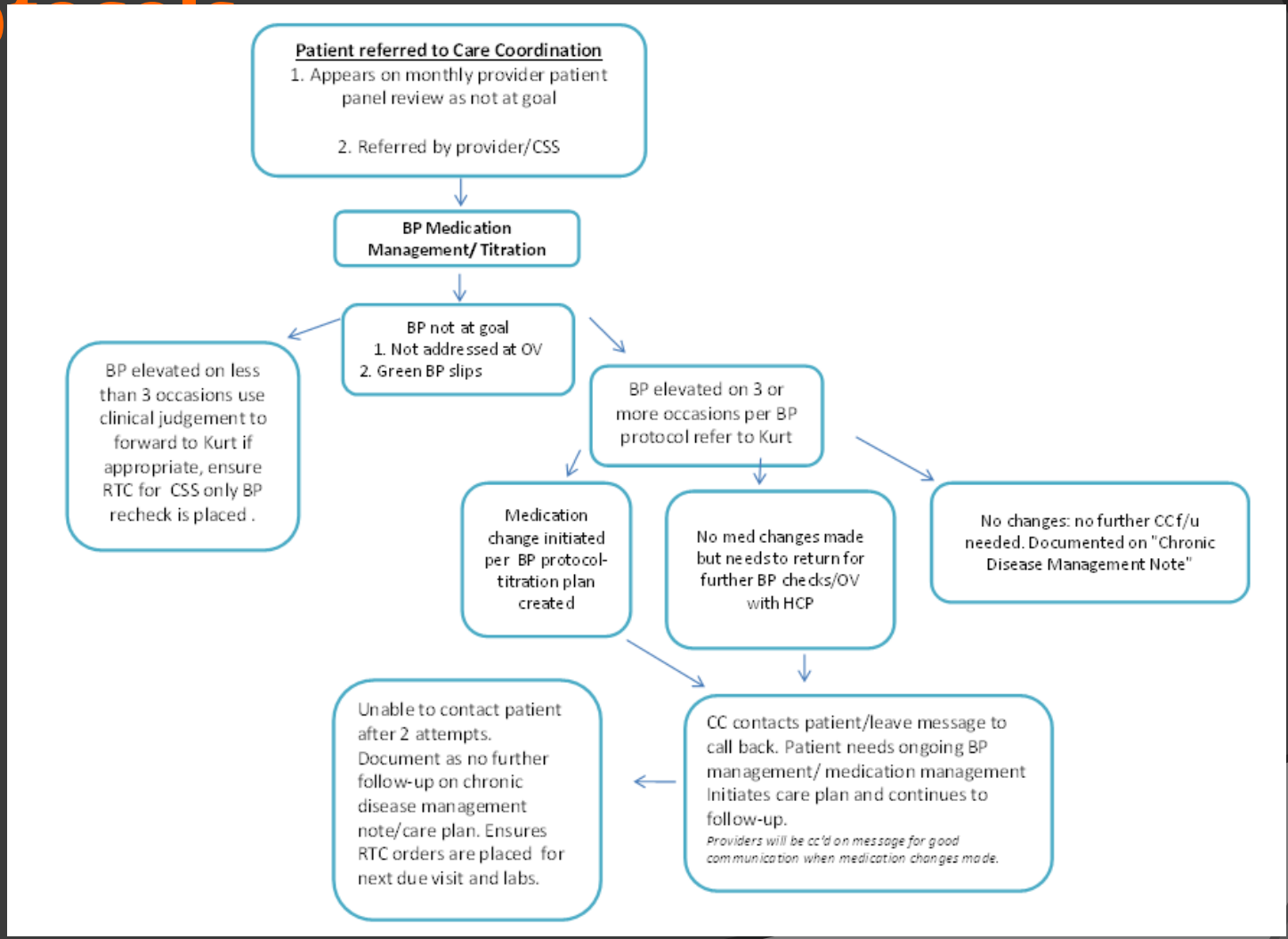
~Blood Pressure Recheck Competition!!!!!~

- ✓ When a patient has a high BP-write down BP readings on lime green slip
- ✓ If you recheck BP-also document recheck on slip
- ✓ **Write your name on the slip!-Otherwise you won't get credit!**
- ✓ Turn in all slips (whether you rechecked or not)-CC will put a large envelope in each unit
- ✓ At the end of 2 weeks-CC will tally up slips and winner will be based on whoever has the highest percent of rechecks.

June 2nd-June 16th

Winner will receive a prize!!!

Initiation and Titration of Medications Using Established Protocols



Patient Chronic Disease Data Base

C	D	E	F	G	H	I	J	K	L	M	N	O	P	U	W
Age	DOB	Dib	IVD	HTN	Systolic	Diastolic	BP Date	A1c	A1c Date	LDL	LDL Date	Aspirin	Tobacc	Notes	Reminder Text
64	08/12/1950			401.1	144	84	12/17/2014						Current		CHRONIC DISEASE VISIT
61	09/30/1953			401.9	144	64	12/17/2014			172	11/2/2013	aspirin	Former	Chronic Disease Manageme	
43	04/17/1971			401.9	156	102	12/17/2014			139	2/21/2014		Never s	Chronic Disease Manageme	CHRONIC DISEASE VISIT
52	09/19/1962	250.60		401.9	126	88	12/17/2014	6.3	~~5/12/2014~~	83	5/12/2014	aspirin	Former	Chronic Disease Manageme	CHRONIC DISEASE VISIT
72	03/12/1942		440.1	401.9	142	72	12/17/2014			71	10/15/2014	aspirin	Former	Care Plan	CHRONIC DISEASE VISIT
66	11/27/1948	250.00			120	62	12/16/2014	6.7	12/16/2014	193	9/15/2014		Current	Glucose Meter	CHRONIC DISEASE VISIT
61	07/23/1953	250.00		401.9	130	80	10/22/2014	6.7	10/8/2014	106	12/15/2014	aspirin	Former	Due for labs/DM check	DM CHECK
50	07/29/1964	250.00		401.9	115	76	12/12/2014	5.9	6/10/2014	57	10/31/2013		Never s	Care Plan	CHRONIC DISEASE VISIT

We extract patient data from our EHR and practice management system using our EHR Reporting program. We manipulate the data in Excel to create patient lists that function for our needs. We can therefore also collect up to date and current data. We look at this together EVERY MONTH!

Patients in Control by Lab Category

Diabetic Patients

Category	In Control	Total Patients	Percent
BP	92	107	86.0%
LDL	81	107	75.7%
Tobacco	93	107	86.9%
A1c	72	107	67.3%

IVD Patients

Category	In Control	Total Patients	Percent
BP	47	56	83.9%
LDL	45	56	80.4%
Tobacco	50	56	89.3%
Aspirin	56	56	100.0%

HTN Patients

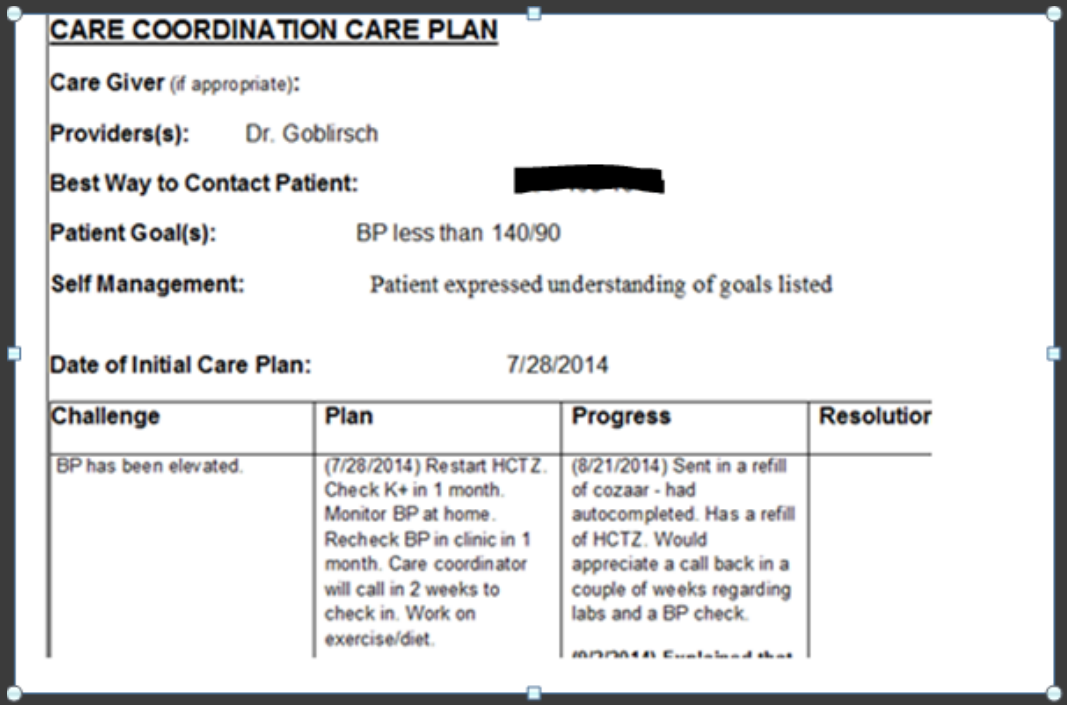
Category	In Control	Total Patients	Percent
BP	209	245	85.3%

Patients in Control by Chronic Disease Category

Category	In Control	Total Patients	Percent
Diabetes	53	107	49.5%
IVD	37	56	66.1%
Hypertension	209	245	85.3%

Care Plan within EHR

Team members need to know the plan



CARE COORDINATION CARE PLAN

Care Giver (if appropriate):

Providers(s): Dr. Goblirsch

Best Way to Contact Patient: [redacted]

Patient Goal(s): BP less than 140/90

Self Management: Patient expressed understanding of goals listed

Date of Initial Care Plan: 7/28/2014

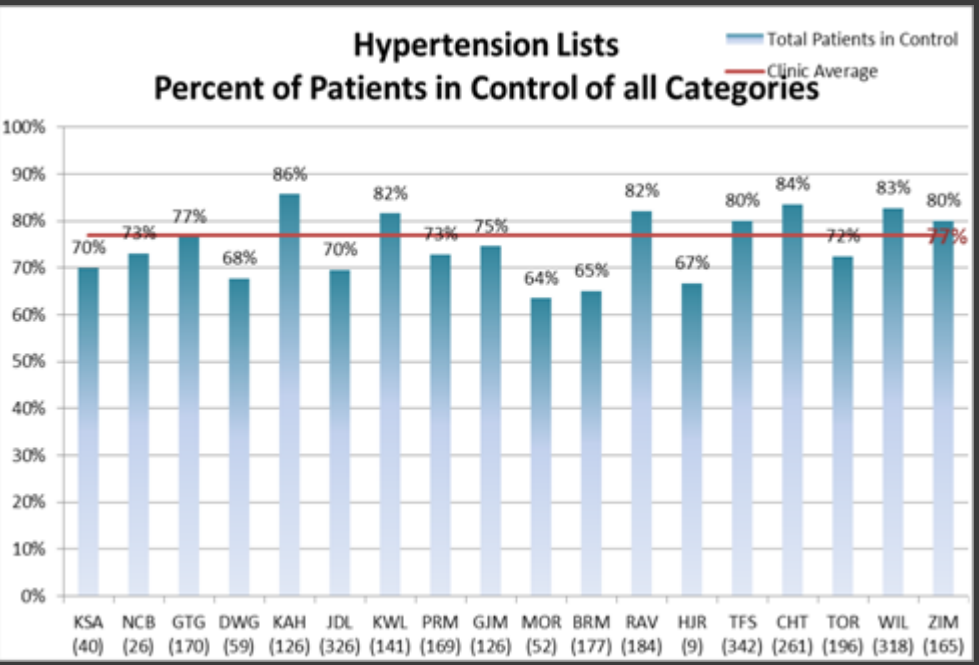
Challenge	Plan	Progress	Resolutior
BP has been elevated.	(7/28/2014) Restart HCTZ. Check K+ in 1 month. Monitor BP at home. Recheck BP in clinic in 1 month. Care coordinator will call in 2 weeks to check in. Work on exercise/diet.	(8/21/2014) Sent in a refill of cozaar - had autocompleted. Has a refill of HCTZ. Would appreciate a call back in a couple of weeks regarding labs and a BP check.	

Staying Connected With Data

Measuring Success

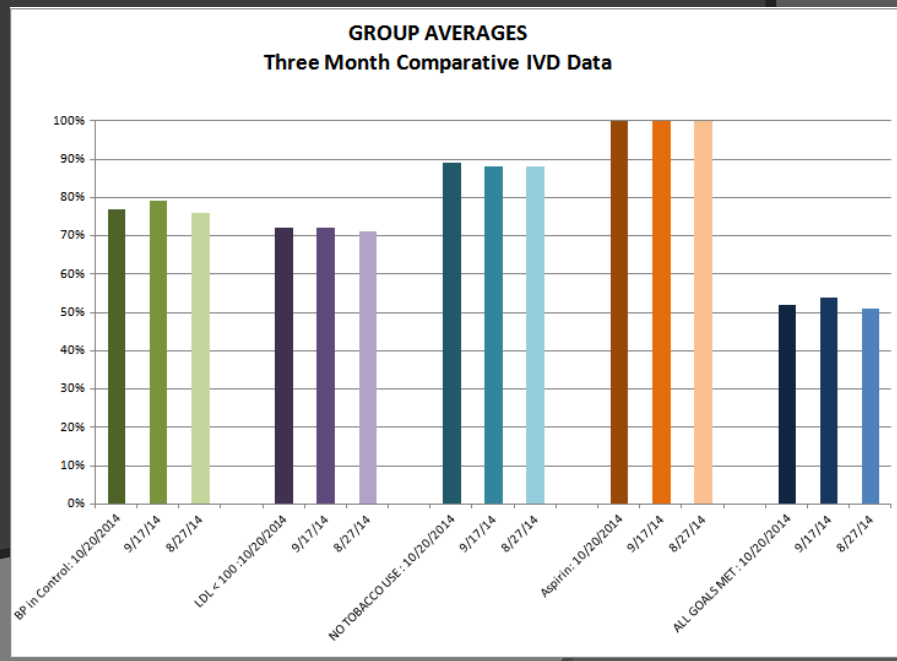
Provide ongoing data for providers and staff on care of patients with IVD, DM, and HTN to facilitate interventions in individual and population care.	Annual reporting of chronic disease and preventative data through MN Community Measurements shows our commitment to quality care.	Measure and report outcomes for preventative screenings such as breast cancer and colorectal cancer screening. This data is then used to improve care.

Data Transparency



Our group believes in transparency. Everyone knows how everyone else is doing. Makes for great competition! Data is distributed to all at every site.

Our focus is on any patient that has hypertension including those with other co-morbidities.



Why it all works!

- Leadership supports the process
- Providers and all staff are engaged
- Patients are engaged
- We believe in helping our patients get well and stay well
- We have caring and compassionate Care Coordinators
- Team Work !!

Challenge Goals

- Accelerate improvement on the Million Hearts® blood pressure control goal
- Reward innovations in Health IT enabled quality improvement
  - *Improve patients' cardiovascular health*
- Promote evidence – based treatment protocols using clinical decision support
- Leverage clinician expertise and recognize real world successes
- Reward scalable decision support tools used effectively across many clinical practices

Phase 2

- Organizations spread Phase 1 winning interventions to as many practices as possible and demonstrate success

- Submission must include:
  - CDS intervention details
  - Spread results – implementations & commitments, blood pressure control & process improvements
  - Spread strategy

- Submit at http://challenge.sites.usa.gov/challenge/ehr-innovations-for-improving-hypertension-challenge/

- Review panel selects winner of $30,000 prize

Review Criteria

- Number of practices in which the CDS interventions were implemented, or implementation is underway
- Number of practices expressing interest in replicating the CDS implementation
- Demonstrated blood pressure control improvements
- Comprehensiveness and innovation in supporting blood pressure protocol elements with CDS tools
- Capacity for the CDS implementation-spreading strategy to be used outside the challenge

The Office of the National Coordinator for Health Information Technology

Timeline & Prizes

Submission period ends **October 23, 2015**

Winners announced **November/December, 2015**

Grand Prize: **$30,000**

Honorable Mentions

And: recognition, publicity, credibility, reach!

http://challenge.sites.usa.gov/challenge/ehr-innovations-for-improving-hypertension-challenge/

http://millionhearts.hhs.gov/

More questions?

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