



MedStar Health

Knowledge and Compassion
Focused on You

A Role for Health IT and Standards in Mitigating Risk in Primary Care

NIST Health IT Workshop
September 7, 2016

Peter Basch, MD, MACP

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- Senior Director for IT Quality and Safety, Research, and National Health IT Policy – MedStar Health
- Chair, Medical Informatics Committee, ACP

Aside from being employed by MedStar Health, I have no relationships with any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients

Three Areas Where Health IT and Standards can Improve Safety and Mitigate Risk

- Know me
 - Patient identification
 - Key clinical information
- Do not harm me – Prescribing
- Help me – Cancer screening

Know Me – Patient Identification

Arm Bands Not Typically Used in Ambulatory Care



Know Me – Patient Identification

Patient Photo in EHR

Binky Zztest EMPI: 3333 Patient ID: 6338972-0268729 Home: 555-555-5555 Work: None Cell: 703-123-4567
 30 Years Old Male DOB: 10/13/1985 PCP: None Insurance: AETN PPO (823) Ins ID: 1234 Email: cs1390FEAF73E78A43D81CB72971F56915@my.medstar.net PP: (Active)

Find Pt. Protocols Graph Handouts Update Phone Nt. Refills

Summary History Problems Medications Alerts/Flags Flowsheet Orders Documents

Problems

- PREVENTIVE HEALTH CARE
- LOW BACK PAIN, ACUTE
- DIABETES INSIPIDUS
- CHEST PAIN
- FLANK PAIN
- BACK PAIN
- PEANUT ALLERGY
- CHIKUNGUNYA FEVER
- HEADACHE
- ACCIDENTAL POISONING ARSENIC&ITS COMPOUNDS&FUMES
- GYNECOMASTIA
- CLOSTRIDIUM DIFFICILE COLITIS, HX OF
- DIARRHEA
- NONSPEC REACT TUBERCULIN SKIN TEST W/O ACTIVE TB
- Family Hx of CVA OR STROKE:

Medications

- * PRE OP ANTIBIOTICS Neomycin 1gm by mouth at 3pm, 4pm, 10pm the night before surgery.
- * NIFEDIPINE 0.5%, LIDOCAINE 1.5%, QASD 30 GMS WITH PETROLATUM Apply 4 times a day
- COCA COLA SYRP (PHOSPHORATED CARBOHYD-CAFF) test
- BACTRIM TAB 400-80MG (TRIMETHOPRIM-SULFAMETHOXAZOLE)
- COCA COLA SYRP (PHOSPHORATED CARBOHYD-CAFF) test
- ADDERALL 30 MG TABS (AMPHETAMINE-DEXTROAMPHETAMINE) twice per day
- ATENOLOL 100 MG TABS (ATENOLOL)
- FUROSEMIDE 40 MG TABS (FUROSEMIDE) 1 bid
- AMLODIPINE BESYLATE 5 MG TABS (AMLODIPINE BESYLATE) Take 1 tablet by mouth each c
- VITAMIN D 400 UNIT/ML LIQD (CHOLECALCIFEROL) 1ml by mouth until 1yr old
- LISINAPRIL 20 MG TABS (LISINAPRIL) take one tab by mouth once a day
- NIFEDIPINE ER OSMOTIC RELEASE 60 MG XR24H-TAB (NIFEDIPINE) once a day

Allergies

- ! PENICILLIN G POTASSIUM
- * LATEX
- * PEANUTS

Directives

- DO NOT RESUSCITATE
- NO BLOOD TRANSFUSION
- NO ARTIFICIAL LIFE SUPPORT

Care Alerts

- ! Fall risk
- has dr appt
- Patient Likes Popsicles

Flowsheet: Enterprise/Internal Medicine/Internal Med


	Date	Value
HEIGHT	07/01/2015	24
WEIGHT	07/01/2015	400
BMI	07/01/2015	490.01
BP SYSTOLIC	06/22/2016	125
BP DIASTOLIC	06/22/2016	89
BP SYS REP	07/02/2013	115
BP DIAS REP	07/02/2013	78
PULSE RATE	07/02/2015	122
BG FASTING		
BG RANDOM		
BG FINGER	06/26/2015	120
EGFR NOT AFA		
GLUCOSE SER		
GLUCOSE PLAS		
HGBA1C		
CHOLESTEROL		
HDL		

Documents: All (since 03/04/2016)

Date	Summary	Status
08/30/2016 10:46 A	Phone: 911 ALERT	On Hold
08/30/2016 10:46 A	Phone: 911 ALERT	On Hold
08/18/2016 8:54 AM	Ofc Visit: Pulmonology Established Patient	On Hold
07/15/2016 2:35 PM	Ofc Visit	Signed
07/04/2016 11:21 PI	Int Corr: Handout Printed	Signed
07/04/2016 11:20 PI	Int Corr: Handout Printed	Signed
07/04/2016 1:40 PM	Int Corr: Handout Printed	Signed
07/01/2016 3:18 PM	Phone	Signed
07/01/2016 3:03 PM	Int Corr: Handout Printed	Signed
07/01/2016 2:42 PM	Int Corr: Handout Printed	Signed
07/01/2016 1:47 PM	Ofc Visit	Signed
06/22/2016 2:19 PM	Int Corr: Handout Printed	Signed
06/22/2016 1:33 PM	Ofc Visit: Annual Physical	Signed

Registration Notes

- Testing Registration Entry
- Updated Cell Phone (Ensure all updates through IDX FIRST)



Know Me – Patient Identification



Know Me – Patient Identification

- There are 285 John Smiths in the MedStar EHR
- At one point I had 3
 - 2 of the 3 had the same middle initial
 - All 3 came for an appointment the same morning

John Smith

- There are **46,746** people in the U.S. named John Smith.

Donald Trump

- There are **20** people in the U.S. named Donald Trump.

Hillary Clinton

- There is **1** person in the U.S. named Hillary Clinton.

Know Me – Patient Identification

Best and Worst Times for Patient Photos in EHR

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HGBA1C		
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HNI		

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06/22/2016 2:19 PM	Int Corr: Handout Printed	Signed
06/22/2016 1:33 PM	Ofc Visit: Annual Physical	Signed

Know Me – Key Clinical Information

PRIOR Problems <input type="checkbox"/> Add prior problems to note	Problems at Start of Visit (verified) Verified Problems Redo
DIABETES INSIPIDUS (ICD-253.5) (ICD10-E23.2) NONSPEC REACT TUBERCULIN SKIN TEST W/O ACTIVE TB (ICD-795.51) (ICD10-R76.11) Family Hx of CVA OR STROKE: (ICD-V17.1) (ICD10-Z82.3) ANKLE, FX STRESS (PATHOLOGIC), UNSPECIFIED (ICD-733.10) (ICD10-M84.40xA) OSTEOPOROSIS, IDIOPATHIC (ICD-733.02) (ICD10-M81.8) ABDOMINAL PAIN, EPIGASTRIC (ICD-789.06) (ICD10-R10.13) ABDOMINAL PAIN, EPIGASTRIC (ICD-789.06) (ICD10-R10.13) DYSPNEA ON EXERTION (ICD-786.09) (ICD10-R06.09)	PREVENTIVE HEALTH CARE (ICD-V70.0) (ICD10-Z00.00) LOW BACK PAIN, ACUTE (ICD-724.2) (ICD10-M54.5) DIABETES INSIPIDUS (ICD-253.5) (ICD10-E23.2) CHEST PAIN (ICD-786.50) (ICD10-R07.9) FLANK PAIN (ICD-789.09) (ICD10-R10.9) BACK PAIN (ICD-724.5) (ICD10-M54.9) PEANUT ALLERGY (ICD-V15.01) (ICD10-Z91.010) CHIKUNGUNYA FEVER (ICD-066.3) (ICD10-A92.0) HEADACHE (ICD-784.0) (ICD10-R51) ACCIDENTAL POISONING ARSENIC&ITS COMPOUNDS&FUMES (ICD-
PRIOR Medications <input type="checkbox"/> Add prior meds to note TOC	Medications at Start of Visit (verified) Med Rec Redo
ATENOLOL TAB 100MG (ATENOLOL) one by mouth every day. * DILTIAZEM 2% ointment. Apply perianally and intra-anally every 12 hours for 8 weeks * PRE OP ANTIBIOTICS Neomycin 1gm by mouth at 3pm, 4pm, 10pm the night before surgery. Flagyl 500mg by mouth at 3pm, 4pm and 10pm the night before surgery * NIFEDIPINE 0.5%, LIDOCAINE 1.5%, QSAD 30 GMS WITH PETROLATUM Apply 4 times a day peri- and intra-analy and after each BM. Use for 6 weeks * HARVONI (LEDIPASVIR / SOFOSBUVIR) 90MG / 400MG Take 1	
Updated Allergies <input checked="" type="checkbox"/> Add updated allergies to note	Updated Directives <input type="checkbox"/> Add updated directives to note
PENICILLIN G POTASSIUM (Critical) ACCUPRIL (Critical) EFFEXOR (Critical) BACTRIM (Critical) MORPHINE (Critical)	DO NOT RESUSCITATE NO BLOOD TRANSFUSION NO ARTIFICIAL LIFE SUPPORT
Add NON-Drug Allergy Onset Date 01/30/2015 Allergies Verified Clear Directives Deferred Directives Verified Clear	

Do NOT Harm Me – Prescribing Illegible prescriptions and ePrescribing

MEDICAL CENTER HOSPITAL
500 - 600 W. 4TH STREET ODESSA, TEXAS Ph. 333-7111

FOR Vazquez Ramon AGE _____
ADDRESS 11111111111111111111 DATE 6/23/95

NO REFILLS **Zendil 20mg # 120 -**
20mg P.O. Q6hr

REFILLS _____ **Ferron sulfate 300mg # 100**
300mg P.O. TID c meals -

LABEL **Humulin N**
30 units SQ QAM.

PRODUCT SELECTION PERMITTED DISPENSE AS WRITTEN

D.E.A. # _____

720 037 2/88 IM 88-270

Do Not Harm Me – Prescribing Drop-Down List Errors

ALDACTONE 25 MG TABS One (1) tablet by mouth once a day 90 x 3 \$0.78
ALDACTONE 50 MG TABS One (1) tablet by mouth once a day 90 x 3 \$1.45
ALDARA 5 % CREA Apply topically three times per week; max 16wk 1 box x 0 \$17
ALEVE TAB 220MG One (1) tablet by mouth twice a day with food \$0.08
ALLOPURINOL 100 MG TABS One (1) tablet by mouth once a day 90 x 3 \$0.24
ALLOPURINOL 300 MG TABS One (1) tablet by mouth once a day 90 x 3 \$0.61
ALPRAZOLAM 0.25 MG TABS One (1) tablet by mouth 1-3x/d as needed 30 x 0 \$0.6
ALPRAZOLAM 1 MG TABS One tablet by mouth once a day \$1.18
ALTACE CAP 2.5MG One (1) capsule by mouth once a day 90 x 3 \$0.76
ALTACE CAP 5MG One (1) capsule by mouth once a day 90 x 3 \$0.81
ALTACE 10 MG CAPS One (1) capsule by mouth once a day 90 x 3 \$2.08
AMANTADINE CAP 100MG One (1) capsule by mouth twice a day 10 x 0 for 5 Days

Medication:

Route:

Instructions:

Comments:

Start Date: 01/30/2015

Stop Date:

Duration:



Days



Weeks



Months

Dosing Calculator

Monograph

Do Not Harm Me – Prescribing Problem/Condition-based Prescribing

Name: Binky Zztest
Birth: 10/13/1985
Age: 30 Years Old
Sex: Male
Height: 55 in (139.70 cm)
Weight: 135.88 lb (61.76 kg)
BSA: 1.49 sqm
Creatinine: 99 mg/dL (10/07/2014)
Insurance: AETN PPO (823)

Eligibility: Pending
 Allrgs(10) Meds(12) Probs(27)

Current/Associated Problems
Problems associated with this medication are highlighted.

Description
PREVENTIVE HEALTH CARE
LOW BACK PAIN, ACUTE
DIABETES INSIPIDUS
CHEST PAIN
FLANK PAIN
BACK PAIN
PEANUT ALLERGY
CHIKUNGUNYA FEVER
HEADACHE
ACCIDENTAL POISONING ARSENIC
GYNECOMASTIA
CLOSTRIDIUM DIFFICILE COLITIS, H

* indicates the calculated values of weight or height.

Find Medication
Custom List: Adult Medicine
AMANTADINE CAP 100MG One (1) capsule by mouth twice a day 10 x 0 for 5 Days

Formulary: < None >
This patient has no formulary.

Define Medication
Medication: AMANTADINE CAP 100MG (AMANTADINE HCL)
Route: ORAL
Instructions: One (1) capsule by mouth twice a day
Comments:
Start Date: 01/30/2015 Stop Date: 02/04/2015
Duration: 5 Days Weeks Months

Prescription
Quantity: 10 Capsule Refills: 0 Brand medically necessary Print Pt. Handout necessary
Pharmacy: CVS/pharmacy #2499*
1221 CHURCHVILLE RD.
BEL AIR, MD 21015 (retail)
Ph: 4104208319
Fax: 4104209068
Authorized By: Williams, Shahna
Prescribing Method: Electronic
State: Maryland
Note to Pharmacy:

Do Not Harm Me – Prescribing Errors of Omission and Commission Due to Consideration of Medication Allergy in Med Choice

Name: Binky Zztest
Birth: 10/13/1985
Age: 30 Years Old
Sex: Male
Height: 55 in (139.70 cm)
Weight: 135.88 lb (61.76 kg)
BSA: 1.49 sqm
Creatinine: 99 mg/dL (10/07/2014)
Insurance: AETN PPO (823)

Eligibility: OK

Allrgs(10) Meds(12) Probs(27)

Current Allergies and Adverse Rxns

- PENICILLIN G POTASSIUM
- * LATEX
- * PEANUTS
- SULFA
- ACCUPRIL
- EFFEXOR
- BACTRIM
- MORPHINE
- * EGGS
- * PEANUTS

Find Medication

Custom List: Adult Medicine Reference List...

Formulary: **FSL Loopback1 (Health Plan Unknown 1)**

Search Formulary...
Select Formulary...
Status...
Choose Alternative

Define Medication

Medication:
Route:

Allergies and Adverse Reactions: Active Only All

	Substance	Reaction
	SULFA	urticaria

Do NOT Harm Me – Med Dispensing

Emerging but Inconsistently Applied Standards for Pill Shape, Size, Color, Markings



Cancer Screening

Remembering to Order It

History of Present Illness Select Specialty:

PCP: Ref Provider:

Visit Type: CC:

History:

Check Box to Insert Form(s) or Template

Acute Care Visit
 Anticoagulation Form
 Asthma History Form
 Asthma Plan Form
 Back Pain Form
 Cardiovascular Management For
 CHF Form
 Depression Form
 Diabetes Management Form
 Diabetes Education

Pt is here with acute atraumatic pain in the left great toe for 4d - not improving with aleve. No other joints bothering her. No prior history of acute arthritis, gout; no fam history. Otherwise ok

Cancer Screening

Remembering to Order It

General HPI | Specialty-Specific | Extra Hx-1 | Extra Hx-2 | Extra Hx-3 | Extra Hx-4

History of Present Illness | Select Specialty: Internal Medicine | **View All Protocols**

PCP: Peter Basch MD | Ref Provider: |
Visit Type: Acute Visit | CC: toe pain - ? gout | **View Prior HPI**

History: | **Edit** | **Insert Template** | **Clear All**

Pt is here with acute atraumatic pain in the left great toe for 4d - not improving with aleve. No other joints bothering her. No prior history of acute arthritis, gout; no fam history. Otherwise ok

Check Box to Insert Form(s) or Template

- Acute Care Visit
- Anticoagulation Form
- Asthma History Form
- Asthma Plan Form
- Back Pain Form

Protocols Due

The following protocols are now due. Check the protocols you wish to view/execute, then click the 'Close' button:

- Breast Cancer Screening-May Be Past Due For Mammogram**
- Initial Preventive Physical Exam-Annual Wellness Visit MAY be DUE
- Million Hearts: Cardiovascular Risk Reduction Goals NOT Met

(C) 2015 | **Check All** | **Clear All** | **Close**

Cancer Screening

Informing the Screening Test Type, Frequency, Patient Prior Response to Screening Order

Breast Cancer Screening-May Be Past Due For Mammogram

The Mammogram Next Due Date has past or is due in the next 30 days and no value for Mammogram exists in database. Please review with patient and either document most recent mammogram results, schedule mammogram, or document appropriate option below.

Last Mammogram: normal: BIRAD 2: benign finding - continue routine screening. (11/19/2014)
Last Mammogram Due Date: 12/2015 (11/25/2014)
Prior Mammogram Recommendation-Action: ordered (03/17/2016)
Last US: N/AN/A
Last MRI Breast: N/A

- Order Screening Mammogram
- Order Diagnostic Mammogram
- Order Breast Ultrasound
- Order MRI Breast
- S/P Bilateral Mastectomy
- Patient declines mammogram
- Mammogram ordered and reviewed by another provider
- Mammogram not indicated-Permanent Shut Off
- Mammogram not indicated at this time
- Mammogram Done but NOT Recorded-Go to Preventive Care Screening Form
- Mammogram to be ordered at next preventive care visit
- Mammogram to be ordered and reviewed by another provider

(C) 2015

Check All Clear All Close

Cancer Screening Protocol Satisfier – Automatic or Manual?

COMPARISON EXAM(S): 1/16/2013; 10/5/2011

Bilateral craniocaudal (CC) and mediolateral oblique (MLO) digital mammographic views with tomosynthesis were obtained.

No suspicious changes seen in mild breast nodularity.

Benign appearing calcifications are present, which are not significantly changed. There are no suspicious clustered microcalcifications, masses or areas of architectural distortion. There has been no significant interval change.

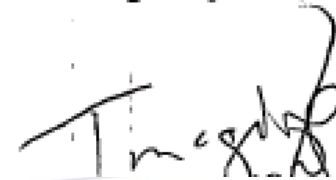
BREAST DENSITY: Scattered fibroglandular densities (25-50%)

IMPRESSION: No mammographic evidence of malignancy.

BI-RADS CATEGORY: 2-Benign Finding(s)

Your patient will be receiving a letter from us within the next 4 weeks containing a lay interpretation of their results.

Thank you for referring your patient to our center.



Questions???
peter.basch@medstar.net