

LOYOLA UNIVERSITY CHICAGO HEALTH SCIENCES DIVISION

WHERE THE RUBBER MEETS THE ROAD:

*EMR optimization for Collaborative Practice;
Chronic Disease Management and Medicaid ACE*

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HEALTH SCIENCES
DIVISION



INSTITUTE FOR TRANSFORMATIVE
INTERPROFESSIONAL EDUCATION

OBJECTIVES

- Discuss specific components of the EMR to support an interdisciplinary model of care framework that optimizes team performance and efficient use of the EMR.
- Identify the processes of interdisciplinary collaboration towards an optimized EMR focusing on creative use of existing tools, optimized workflows and a group vision of documentation of patient care pathways to fill the gaps created by traditional EMR functionality in order to reach population health goals.

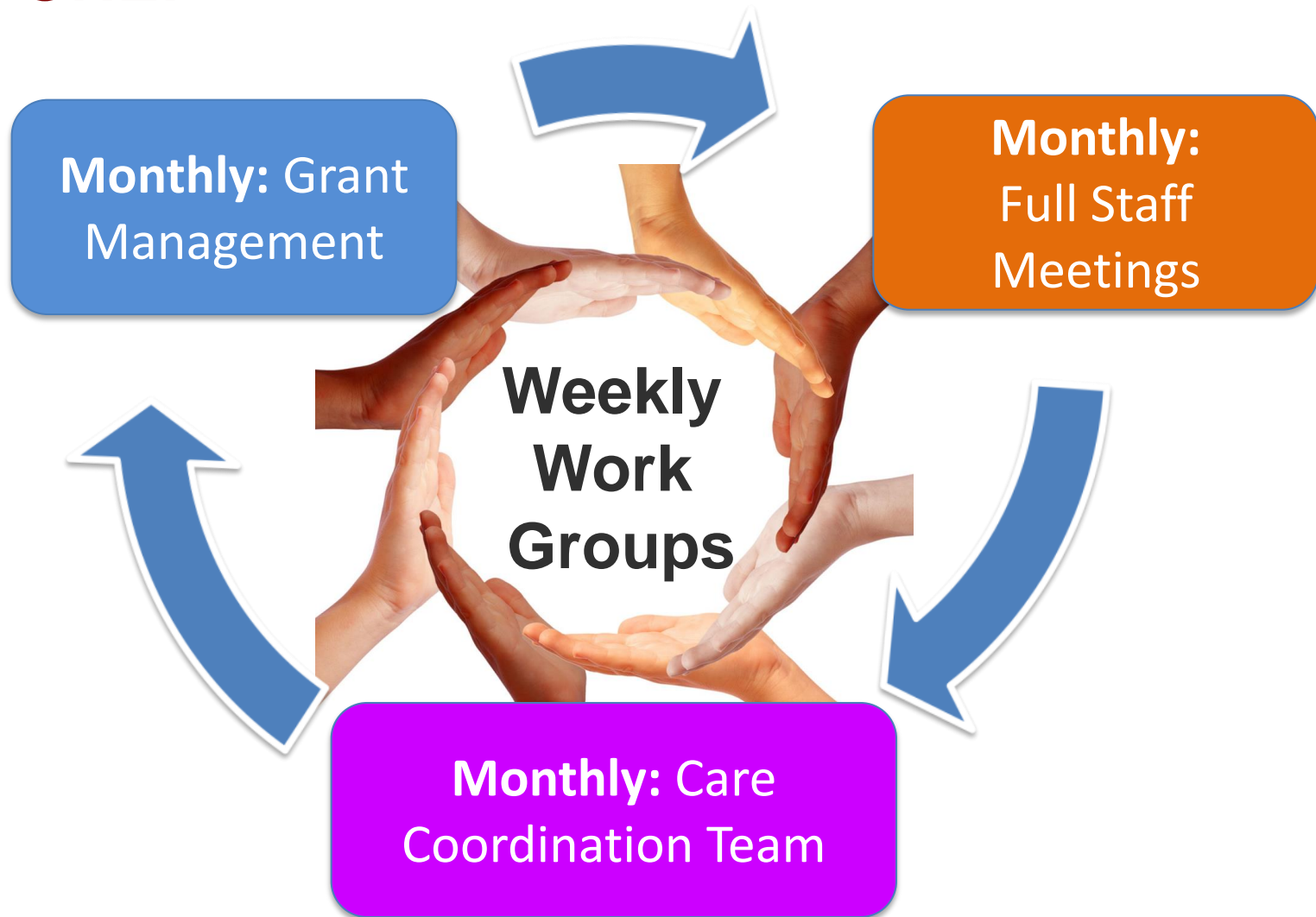
I-CARE PATH GRANT* (HRSA)

Create a patient-centered, nurse-led interprofessional model of care at a Family Medicine Clinic and a School Based Health Center; and include IPECP experiences for interprofessional students.



*Interprofessional Collaborative Redesign and Evaluation for Population Access to Health. The I-Care Path project is supported by a Health Resources and Services Administration Cooperative Agreement Award No. UD7HP26040: LOYOLA UNIVERSITY.

CURRENT STRUCTURE: GETTING THE WORK DONE!





**Weekly Work Group:
Care Coordinator Team**

IV. INFORMATION SYSTEMS AND ORGANIZATIONAL FOG

Patient Centered Medical Home

What data? Where is it? Who can access it?

Return data to team for decision making?



V. OUTCOMES³

- Population Metrics
- Staff/Provider Response
- Health System Response
- Health Promotion to Meet Community Needs
- Patient Response



VISIT NAVIGATOR ACTIVITIES

Two New Activities

- Risk Scoring
- Health Assessment

8/11/2014 visit with Physician, Notes Combined, MD for Office Visit

Images Questionnaires Admin Benefits Inquiry References Scans Open Orders Print AVS Preview AVS Media Manager More

Rooming

Reason for Visit

Vitals

Allergies

Verify Rx Benefits

Med Disclaimer

Med Disp Hx

Home Medications

Encounter Questio...

myLoyola Sign-up

Charting

History

Nursing Notes

H & P Notes

Progress Notes

Orders

Immunizations

Risk Scoring

Health Assessment

Diagnosis/Orders

Problem List

Reason for Visit [click to open](#)

None

Vitals [click to open](#)

[+ New Set of Vitals](#) [Doc Flowsheets](#)

None Taken

Other Vitals

OB/Gyn status reviewed: **Never reviewed**

Tobacco

Smoking status: **Never Assessed**

Smokeless status: **Unknown**

Reviewed: **Never reviewed**

Allergies/Contraindications [click to open](#)

Show: ☐ Deleted ☐ Expired

☐ No Known Allergies Never Updated (History)

No Allergies on File

☒ Mark as Reviewed ☐ Unable to Assess ☐ Never Reviewed

Verify Pharmacy Benefits

[No pharmacy benefits eligibility data found for this visit.](#)

RISK SCORING

Risk Scoring

Time taken: 1306 8/13/2014 Values By Show: Row Info Last Filed

Risk Assessment Scoring

Click the "New Health Assessment" button to open form

New Health Assessment

Claims-based Risk Score

Care Coordinator Risk Assessment

-3.00

Click the "Override" button to modify patient risk level.

Override

Encounter-based Risk Score

Risk Level Override

Low

Medium

High

ADULT AND PEDIATRIC HEALTH ASSESSMENTS

Adult Health Assessment

In general, how would you describe your health?

Excellent Very Good **Good** Fair Poor

Does your health now limit you in doing moderate work around the house like vacuuming, sweeping floors, or carrying in groceries?

Without any difficulty With a little difficulty **With some difficulty** With much difficulty Unable to do

Does your health now limit you in doing heavy work around the house like scrubbing floors, or lifting or moving heavy furniture?

Not at all Very little **Somewhat** Quite a lot Cannot do

In the past 7 days, my worries overwhelmed me

Never Rarely **Sometimes** Often Always

In the past 7 days, I felt like a failure

Never **Rarely** Sometimes Often Always

In the past 7 days, I felt unhappy

Never **Rarely** Sometimes Often Always

Pediatric Health Assessment

Time taken: 1609 8/14/2014 Values By

Show Row In

In the past 7 days, I could walk up stairs without holding on to anything

With no trouble With a little trouble **With some trouble** With a lot of trouble Not able to do

In the past 7 days, I have been physically able to do the activities I enjoy most

With no trouble **With a little trouble** With some trouble With a lot of trouble Not able to do

In the past 7 days, I could do sports and exercise that other kids my age do

With no trouble **With a little trouble** With some trouble With a lot of trouble Not able to do

In the past 7 days, I felt worried

Never Almost never **Sometimes** Often Almost always

In the past 7 days, I felt sad.

Never Almost never **Sometimes** Often Almost always

In the past 7 days, it was hard for me to have fun

Never Almost Never **Sometimes** Often Almost always

REVIEW FLOWSHEETS

← →

SnapShot

Chart Review

Results Review

Flowsheets

Problem List

Health Maintena...

History

Letters

Demographics

PACS

Cardiographics

Forms

Immunizations

Patient Education

Medications

Flowsheet Report

Select Flowsheets to View

PEDIATRIC HEALTH ASSESSMENT [313]

Pediatric Health Assessment	8/19/2014
Walk Up Stairs	With no trouble
Physically able to do activities	With a little trouble
Sports and exercise other kids my age do	With no trouble
Worries	Sometimes
Sad	Sometimes
Hard for me to have fun	Sometimes
I felt that everything in my life went wrong	Sometimes
Too tired to enjoy the things I like to do	Sometimes
Too tired to keep up with schoolwork	Sometimes
Got tired easily	Sometimes
Accepted by other kids	Sometimes
Other kids wanted to be friends	Sometimes
Hard for me to pay attention with pain	Sometimes
Trouble sleeping when I had pain	Sometimes

SNAPSHOT – CHANGES VISIBLE TO ALL TEAM MEMBERS

- Risk Scoring
- Care Team

Report: **SnapShot**

Works at 1ST CONG CHURCH

Chronic

Hold Soon Due Late

Last Communication

Risk Reviews

	8/13/14	8/11/14
HRA Score	-1	-3
Risk Level Override	Medium	Medium

Medications

Hospital Medications [Outpatient Medications](#)

No current Hospital Medications

Immunizations/Injections

Influenza Vaccine 3 & Above 8/13/2014

Pneumococcal Vaccine 13-Valent

Specialty Comments

None

Health Maintenance

Topic	Due	Last Communication
Ca Screening: Colonoscopy, every 10 Years, routine	1/2/2006	
Hiv Screen	8/15/2015	
Adult Vaccine: Influenza	9/1/2014	
Ca Screening: Mammogram, Annual	2/5/2015	
Ca Screening: Pap Smear, every 5 Years	5/6/2019	
Chol Screening: Every 5 Years	8/13/2019	
Ca Screening: Hpv Screening 5 Year	8/13/2019	
Adult Vaccine: Tetanus(Td) Booster, every 10 Yr	8/13/2024	

My Last Outpatient Progress Note

You have written no Outpatient Progress Notes for this patient

Influenza Vaccine 3 & Above 8/13/2014

Pneumococcal Vaccine 13-Valent 8/13/2014

Specialty Comments [Edit](#) [Show All](#) [Report](#)

No comments regarding your specialty

Communication Summary

Referring Provider

No referring provider set

PCPs	Type
Veselik, Keith, MD	General
Other Patient Care Team Members	Relationship
Daniels, Deborah, RN	Care Coordinator
Visit Treatment Team	Relationship
None	

NEW PROBLEMS ADDED BY CARE COORDINATOR

- Health Care Home, Active Care Coordination
- Nursing Home Resident, if applicable

Problem List

Search for new item

Diagnosis

▶ **Nursing home resident** Edit Overview

Overview Berkshire.

▶ **Health care home, active care coordination** + Create Overview

☒ Mark as Reviewed ☐ Never Reviewed

☒ Close F9

Significant History/Details

Smoking: Never Smoker

Smokeless Tobacco: Unknown

Alcohol: No

1 open order

Problem List Chronic

Hospital

Nursing home resident

Health care home, active care coordination

Health Maintenance Hold Soon Due Late

Medications

Hospital Medications Outpatient Medications

No current Hospital Medications

Immunizations/Injections

Influenza Vaccine 3 & Above	8/13/2014
Pneumococcal Vaccine 13-Valent	8/13/2014

DISEASE MANAGEMENT TOOLS

Currently available review flowsheets with recommended data capture for diabetes, HTN, cardiac disease, etc.

Select Flowsheets to View		✓ More data may exist for flowsheet													
DIABETES PATIENT REPORT CARD [127]															
DIABETES PATIENT REPORT CARD	Latest Ref Rng	7/27/2013	8/7/2013	8/12/2013	8/24/2013	8/25/2013	8/30/2013	8/31/2013	9/5/2013	9/10/2013	9/18/2013	9/25/2013	10/3/2013	10/9/2013	
SYSTOLIC				121			104	144	112	132	122	120	142	110	
DIASTOLIC				56			59	60	70	58	70	70	72	70	
WEIGHT			215.2			208.11				215			215		
BMI			26.9		26.01					26.87			26.87		
Hemoglobin A1C	4.0 - 6.0 %	8.2 (H)													
HDL Cholesterol (HDLc)	>39 MG/DL	31 (L)													
LDL Cholesterol (LDLc)	<100 MG/DL	55													
Triglyceride (TRIG)	<150 MG/DL	67													
Microalbumin/Creat (alb)	<19 MG/L	52.8 (H)													

Flowsheet Report

Select Flowsheets to View

WELLNESS BENEFIT [126]

✓ More data may exist for flowsheet

Load More

Wellness Benefit	Latest Ref Rng	10/9/2013	10/3/2013	9/25/2013	9/18/2013	9/10/2013	9/5/2013	8/31/2013	8/30/2013	8/29/2013	8/28/2013	8/27/2013	8/26/2013	8/25/2013	8/25/2013	8/24/2013	8/24/2013	8/12/2013	8/8/2013	8/7/2013
HEIGHT			6' 3"			6' 3"		6' 3"							6' 3"					
WEIGHT			215 lbs			215 lbs									208 lbs 2 oz					215 lbs
BMI			26.87			26.87											26.01			26.9
SYSTOLIC BP		110	142	120	122	132	112	144	104									121		
DIASTOLIC BP		70	72	70	70	58	70	60	59									56		
PULSE		76	82	72				72	73									83		
CHOLESTEROL	<200 MG/DL																			
HDL CHOLESTEROL	>39 MG/DL																			
LDL CHOLESTEROL	<100 MG/DL																			
TRIGLYCERIDE	<150 MG/DL																			
GLUCOSE BLOOD SUGAR	70 - 100 MG/DL									152 (H)	166 (H)	188 (H)	90	391 (H)		364 (H)		131 (H)	88	

TOOLS – OUTREACH TOOLS IN TELEPHONE ENCOUNTER

Outreach Encounter

Caller: None
Allergies: Not on File

Reason for Call

Reason for Call	Onset
Outreach-Care Coordination	8/7/2014

Delete

- Embedded in current 'telephone' encounter (separate activity button on the left, use 'reason-Outreach')
- Scripts available or 'regular' documentation of call content

LUH Outreach Call

Type of Outreach Call

HF 2-3 Day HF 10-14 Day PN 2-3 Day PN 10-14 Day Stroke General AMI 2-3 Day AMI 10-14 ...

myLoyola msg Routing Comm Manage

Close Encounter Close Encounter

GMH Outreach Scripts

New Reading

Telephone 08/07/14

LUH Outreach Call

Type of Outreach Call

GMH Outreach Scripts

New Reading

Telephone 08/07/14

GMH Outreach Call

Encntrs	Notes	Meds	Lab	Rad	Reports	ECG	Other Orders	Letters	Episodes	Media	Misc Reports
14 records match filters, all records loaded											
<input checked="" type="checkbox"/> Hide Add'l Visits											
Filters: Hide Add'l Visits											
		Date ▾	Discharge Date	Type	Department	Provider			Description		
		08/19/2014		Telephone	MAYFP	Op-Ip, Rn Ace Care Coord, RN			Outreach-Care Coordination		

10/29/14 12:44 PM	10/29/2014	Clinical Update	Multidisciplinary Care Note	Addendum	SOCIAL WORKER, OP...	Social Worker
10/29/14 12:38 PM	10/29/2014	Multidisciplinary C...	Multidisciplinary Care Note	Signed	OP-IP, RN ACE CARE ...	Registered Nu...

Filing Date	Enc Date	Enc Type	Category	Status	Author
10/31/14 2:15 PM	10/31/2014	Multidisciplinary C...	Progress Notes	Signed	OP-IP, AC
10/31/14 10:55 AM	10/29/2014	Multidisciplinary C...	Progress Notes	Signed	OP-IP, AC
10/31/14 10:50 AM	10/29/2014	Multidisciplinary C...	Progress Notes	Sign at close e...	OP-IP, RN
10/29/14 12:44 PM	10/29/2014	Clinical Update	Multidisciplinary Care Note	Addendum	SOCIAL V
10/29/14 12:38 PM	10/29/2014	Multidisciplinary C...	Multidisciplinary Care Note	Signed	OP-IP, RN
9/25/14 3:51 PM	7/18/2014	Admission (Current)	Anesthesia Note	Incomplete	NATONTO
9/25/14 3:02 PM	9/25/2014	Office Visit	Progress Notes	Sign at close e...	STIFF, PA
9/25/14 3:02 PM	9/25/2014	Office Visit	Patient Instructions	Signed	STIFF, PA
9/19/14 10:26 AM	9/19/2014	Office Visit	H&P	Signed	FOY, REE
08/18/2014 14:38	8/13/2014	Office Visit	Exam Note		RN ACE C
8/13/14 1:40 PM	8/11/2014	Office Visit	H&P	Signed	PHYSICIA
8/13/14 1:38 PM	8/13/2014	Office Visit	H&P	Signed	PHYSICIA



DOB: 2/27/1979
Sex: F
Enc. Date: 08/01/14

Multidisciplinary Care Note Info			
Author Op-IP, Rn Ace Care Coord, RN	Note Status Signed	Last Update User Op-IP, Rn Ace Care Coord, RN	Last Update Date/Time 8/1/2014 11:12 AM
Multidisciplinary Care Note by Op-IP, Rn Ace Care Coord, RN at 08/01/14 11:08			
Author: Op-IP, Rn Ace Care Coord, RN Filed: 08/01/14 11:12 Status: Signed	Service: (none) Note Time: 08/01/14 11:08 Editor: Op-IP, Rn Ace Care Coord, RN (Registered Nurse)	Author Type: Registered Nurse Note Type: Multidisciplinary Care Note	

MULTIDISCIPLINARY CARE PLAN

GOALS	
Modality	ASSESSMENT Home Dialysis Referral: Transplant Referral:
Estimated Time: Three months	INTERVENTIONS: Patient will be aware of all modes of therapy
Volume Status: Average Interdialytic Weight Gain <3 kg BP 130/80 (adult)	ASSESSMENT Dry Weight: Weight Gain: , Acceptable BP: 130/84 (average, post)
Estimated Time: One month	INTERVENTIONS: continue present management

Authenticated/Electronically Signed by Op-IP, Rn Ace Care Coord, RN on 08/01/14 11:12.

LOYOLA MEDICINE
We also treat the human spirit.*

Maywood, IL 60153

TEST, ACE
MRN: 1851501
DOB: 1/2/1956, Sex: F
Enc. Date: 10/29/14

Multidisciplinary Care Note Info			
Author Social Worker, Op-IP	Note Status Addendum	Last Update User Zzmr, Op-IP Dietitian	Last Update Date/Time 10/29/2014 12:44 PM

Multidisciplinary Care Note by Social Worker, Op-IP at 10/29/14 1241			
Author: Social Worker, Op-IP Filed: 10/29/14 1244 Status: Addendum Test workflow	Service: (none) Note Time: 10/29/14 1241 Editor: Zzmr, Op-IP Dietitian (Nutritionist)	Author Type: Social Worker Note Type: Multidisciplinary Care Note	

ACE coord workflow test

RN ACE test workflow

Dietician workflow test

Authenticated/Electronically Signed by Zzmr, Op-IP Dietitian on 10/29/14 1244

Revision History			
Date/Time	User	Provider Type	Action
> 10/29/14 1244	Zzmr, Op-IP Dietitian	Nutritionist	Addend
10/29/14 1243	Zznurse, Ip, RN	Registered Nurse	Addend
10/29/14 1242	Op-IP, Rn Ace Care Coord, RN	Registered Nurse	Addend
10/29/14 1241	Social Worker, Op-IP	Social Worker	Sign

Tools – Continuing Plan of Care

- Decide on encounter type
- Use template and note type 'Multidisciplinary'
- Audit history of note contributors

MULTIDISCIPLINARY NOTE OUTLINE

GOALS			
Diabetes A1c Level 3 - DM Well controlled A1C < 7.0 Level 4 - DM Fairly controlled A1C 7.0-8.0 Level 5 - DM Poor control A1C 8.0-9.0 Level 6 - DM Uncontrolled A1C > 9.0 MicroAlb Estimated Time: {21696}	ASSESSMENT @LASTLABX(HA1C:2)@ Home FBS monitoring:@FLOW(725354,725340,725341:LAST)@ @LASTLABX(HDLD:2,LDLC:2)@ INTERVENTIONS: Patient will be compliant with daily FBS self measures PLAN: ***		
HT/WT/BMI BMI (Body Mass Index) 18.5 - 24.9 BP 130/80 (adult) Estimated Time: {21696}	ASSESSMENT {:21202} @BMIE@ @BSAE@ INTERVENTIONS: PLAN: ***		
Cardiac LDL <100 101<130 131<160 Estimated Time: {21696}	ASSESSMENT LDL @LASTLABX(LDL:2)@ {:21203} INTERVENTIONS: PLAN: ***		
Anemia: Hgb 10mg/dL -12mg/dl Hct 30-36 % Estimated Time: {21696}	ASSESSMENT Hgb level mg/d & Hct %: @LASTLABX(HCT,HGB)@ {21205} INTERVENTIONS: PLAN: ***		

- Measurable defined chronic disease goals of treatment are 'hard coded' in the document so no one has to spend lots of time typing
- Lab values can be 'automatically' pulled in so they don't have to be searched for
- Currently have diabetes, cardiac, obesity
- Documentation time spent on 'personalizing' the plan
- The estimated time for goals include one month, three months, ongoing

NOTE TEMPLATE

- Proof of concept with CMS dialysis plan of care
- Each discipline addends their note template
- Audit trail of each clinician
- Less typing, more synthesis
- Linking of already documented items when possible (labs, vitals, flowsheet content, etc.)

WORKFLOW

- Normal workflows for office visits
- Additional visit time with other disciplines (SW, Dietician, Care Coordinator) also documented
- Outreach telephone encounter
- Monthly Clinical Update (or Multidisciplinary) encounter and note to capture plan of care with addended note to capture synthesis of the team's strategy for this patient's care and focus

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