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Équipe de Santé Familiale · Family Health Team

Improving Hospital Readmission Rates and Follow-up after Hospitalization: A Team-Based Approach

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Ontario

Conflict of interest

Presenters report the absence of any conflict of interest.

This project has not received any financial support from any commercial organization.

Learning objectives

- To understand how quality improvement tools can be used effectively to facilitate improvement initiatives in primary care
- To understand how members of the multidisciplinary team can be efficiently involved in the post-hospitalization phase to reduce complications at this stage
- To learn about gaps during transitions of care that highlight needs for further system integration

Who are we?

Our Mission of Excellence:

High Standard Interprofessional Primary Care + Family Medicine Teaching

3 Offices
11,000+ patients
15 IHPs
10 Physicians
18 Admin staff
18 Family Practice Residents

Multiple CDM and Preventative Care Programs

Who are we?

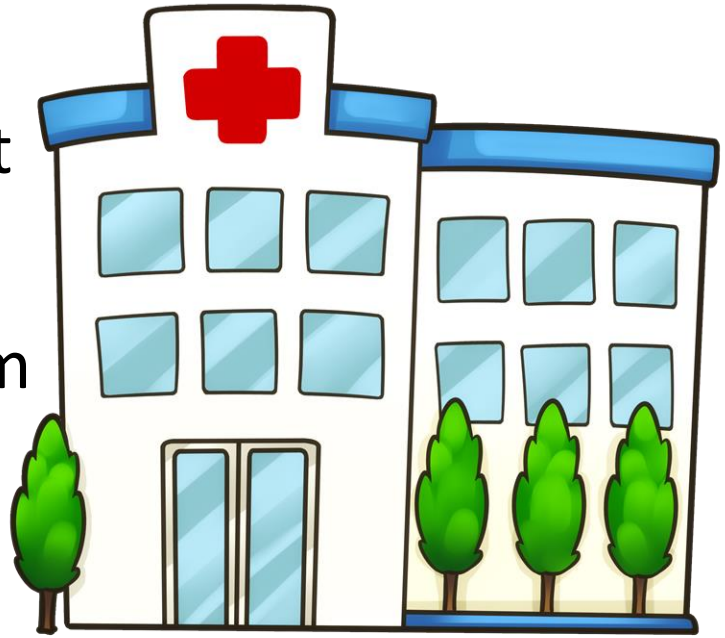
• Inge Bonnette	Family Practice RN
• Gordon Canning	Nurse Practitioner
• Latonya Gaisie	Unit Assistant
• Heather Hadden	Pharmacist
• Claudia Mazariegos	Dietitian/QI Lead
• James Pencharz	Staff Physician
• Merlika Salihu	Clinical Assistant

The problem

- Unnecessary re-hospitalizations have a direct negative impact on patient morbidity and mortality and places stress on caregivers and families
- The literature indicates that timely follow-up visits post-hospital discharge can reduce hospital readmission rates.
- 34% of CVFHT patients saw their primary care provider within seven (7) days after discharge from for the hospital for CMGs compared to the provincial average 37% (Health Data Portal).
- The CVFHT had no defined process for follow-up for discharged patients

How did we start

- Apply the model of improvement
- Understanding our current state
  - Data
  - Process mapping
- Use of Quality improvement tools to understand gaps
- Vison future transitions from acute care to community
  - Admission Phase
  - Discharge Phase
  - Follow-up Phase



MODEL FOR IMPROVEMENT

AIM → What are we trying to accomplish?

MEASURE → How will we know if a change is an improvement?

CHANGE → What changes can we make that will result in improvement?

RAPID CYCLE IMPROVEMENT →

Quality Improvement Guide, Health Quality Ontario, 2012

Aim statement

To improve the system by analyzing the current system and designing a new process at the CVFHT. The CVFHT Readmission Team is going to reduce the 30-day hospital readmission rate by 20% compared to baseline (collected from Aug 2012 to Aug 2014= 37 readmissions/409 admissions). This represents a reduction from 9.0 % to 7.2 % by June 1, 2015.

Tip

"You can't improve what you don't measure."

Identification of the hospitalized patient

Tip

Validate your data

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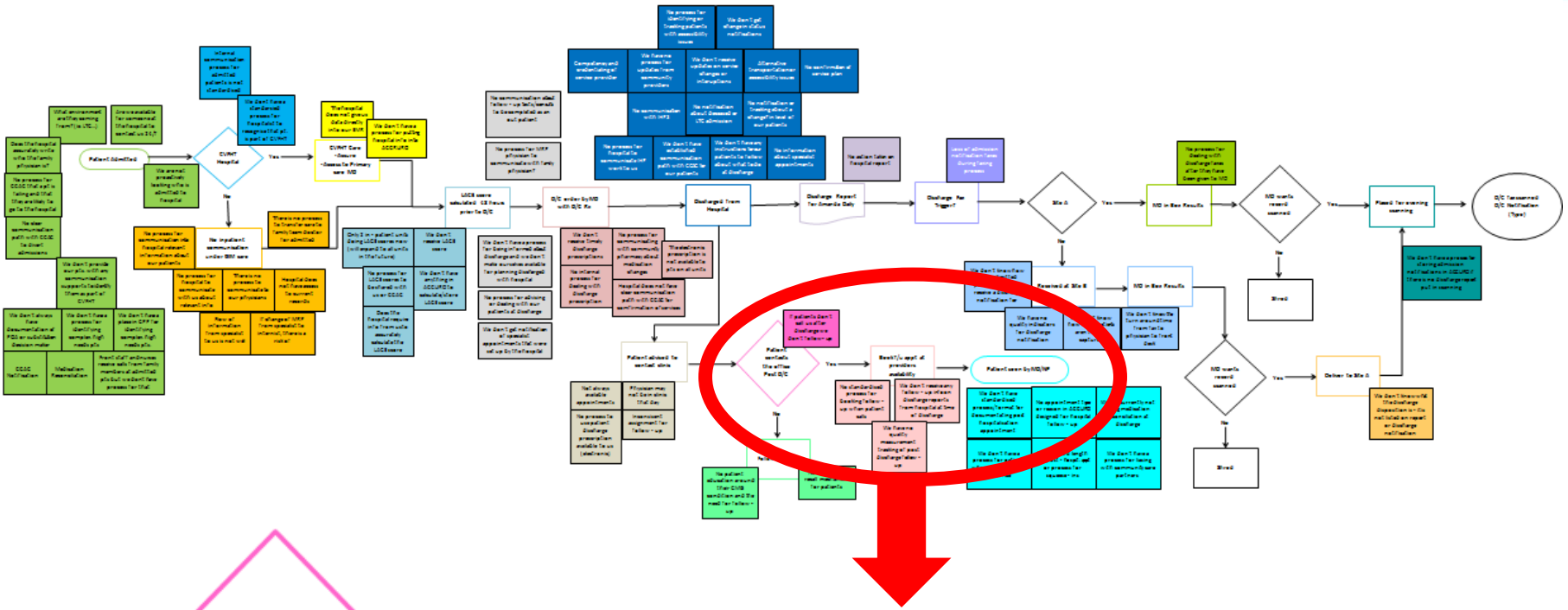
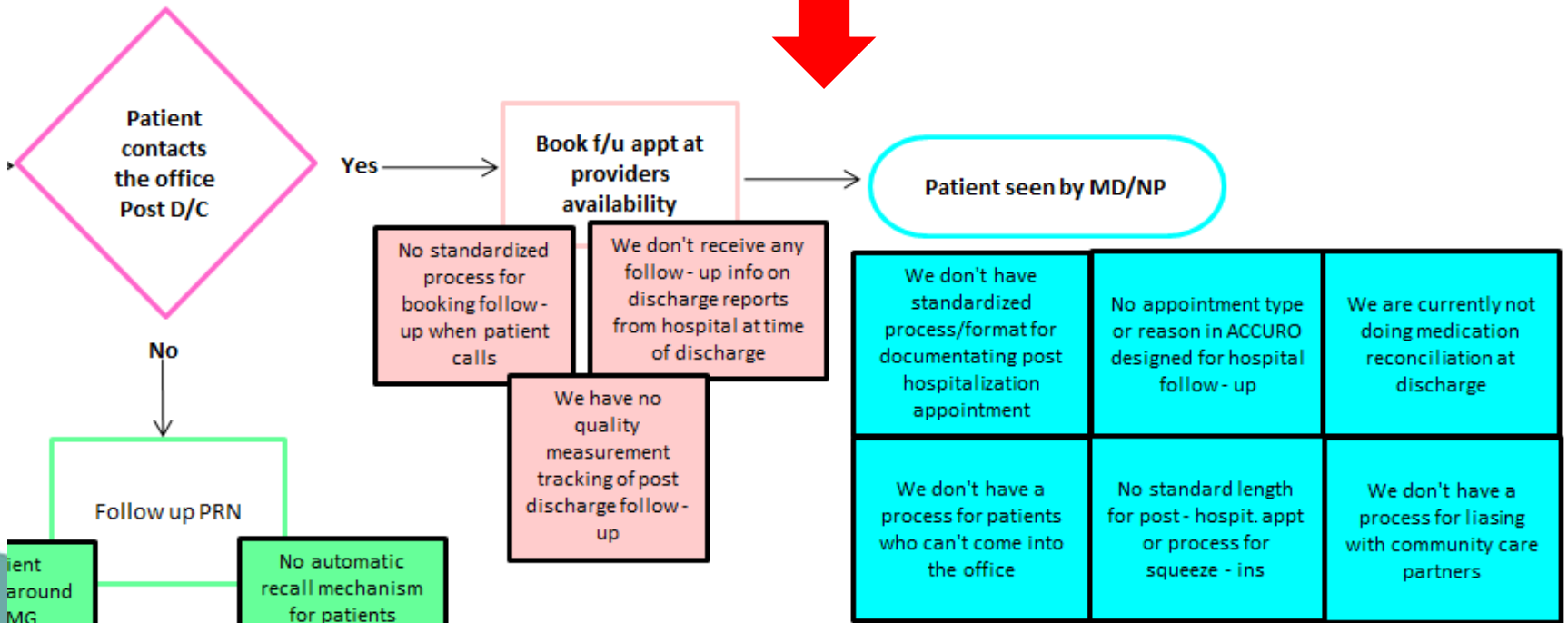
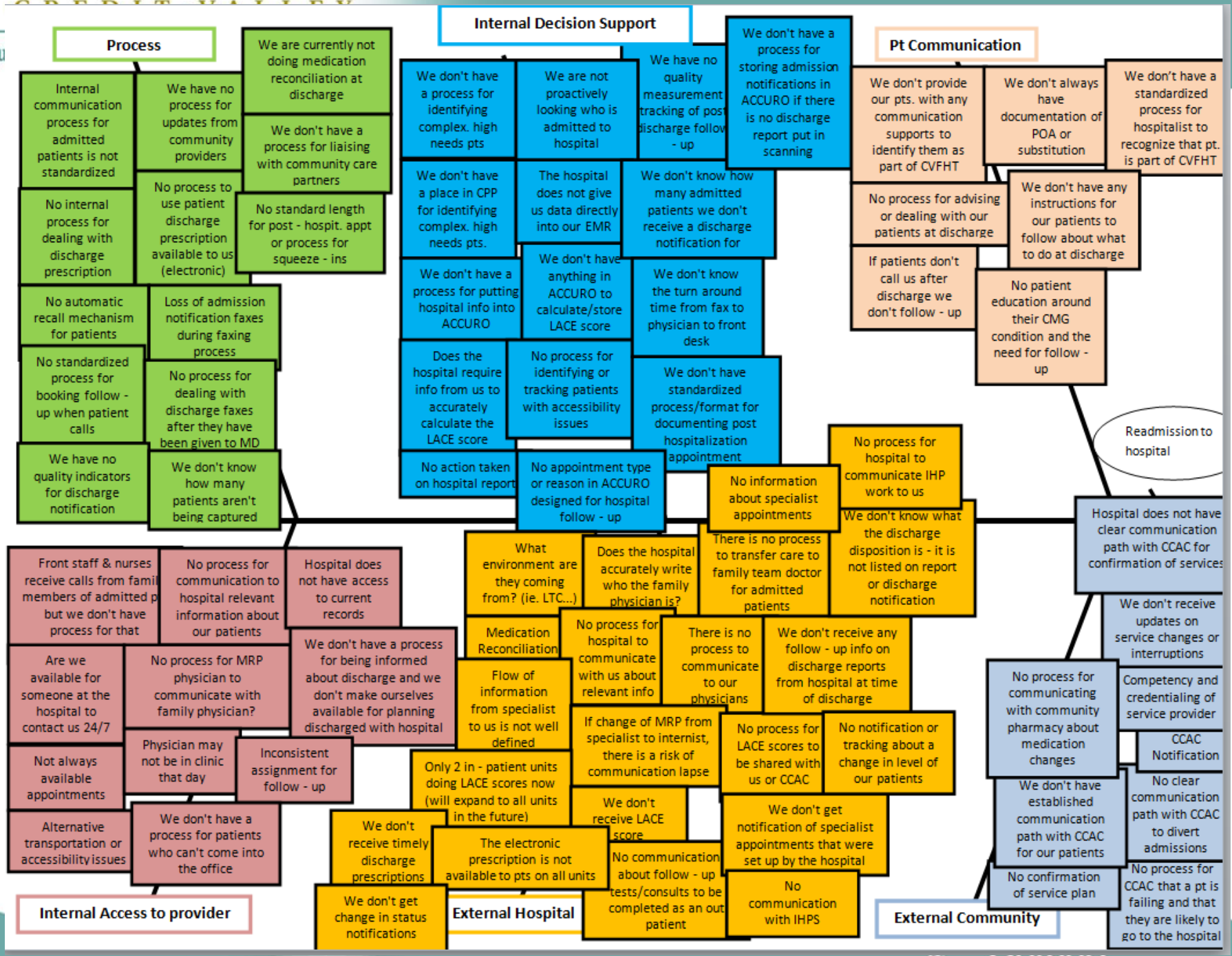
Process map





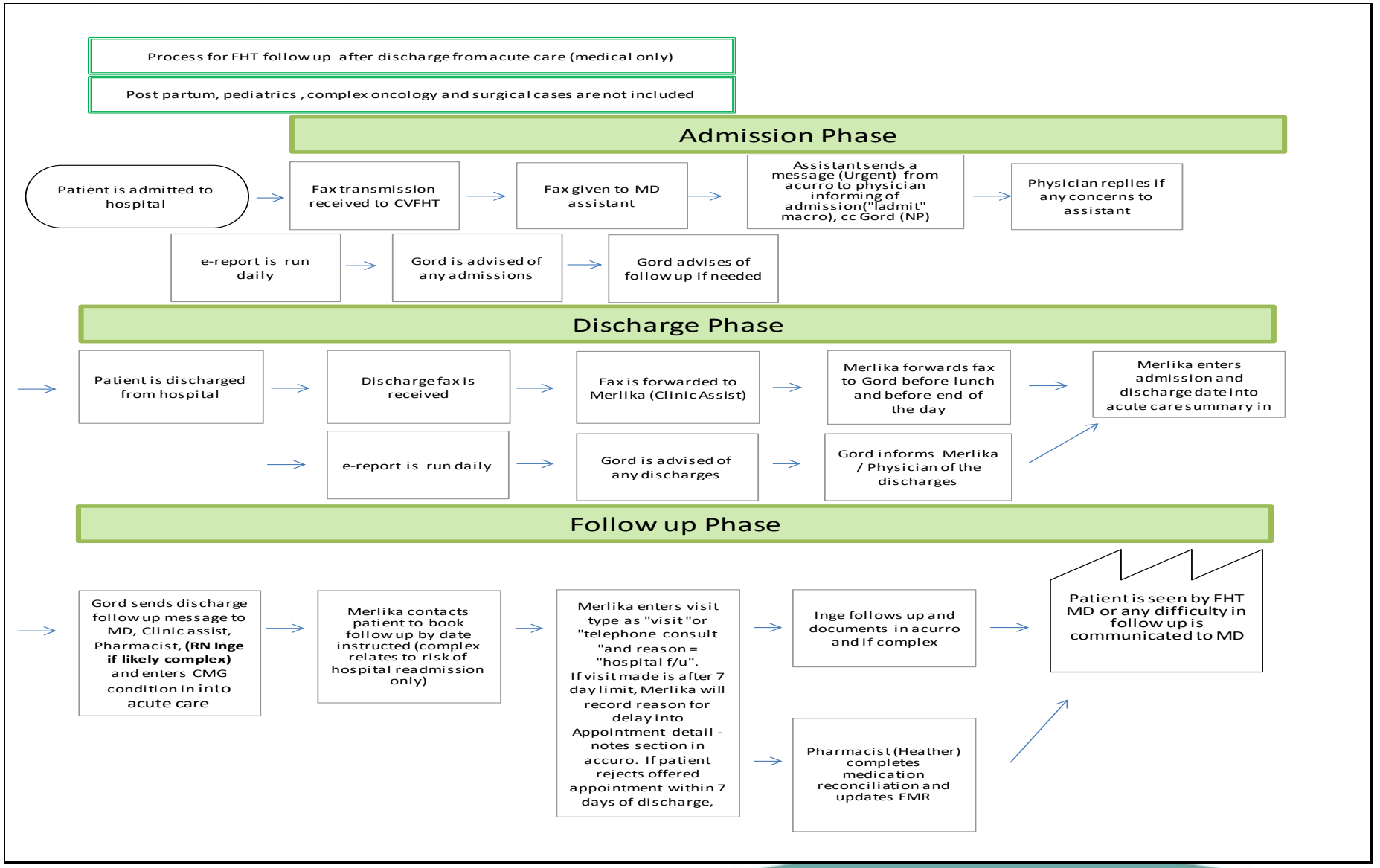

Process
We are currently not doing medication reconciliation at discharge
Internal communication process for admitted patients is not standardized
We have no process for updates from community providers
We don't have a process for liaising with community care partners
No process to use patient discharge prescription available to us (electronic)
No internal process for dealing with discharge prescription
No standard length for post - hospit. appt or process for squeeze - ins
No automatic recall mechanism for patients
Loss of admission notification faxes during faxing process
No standardized process for booking follow - up when patient calls
No process for dealing with discharge faxes after they have been given to MD
We have no quality indicators for discharge notification
We don't know how many patients aren't being captured
Internal Decision Support
We don't have a process for identifying complex. high needs pts
We are not proactively looking who is admitted to hospital
We have no quality measurement tracking of post discharge follow - up
We don't have a process for storing admission notifications in ACCURO if there is no discharge report put in scanning
We don't have a place in CPP for identifying complex. high needs pts.
The hospital does not give us data directly into our EMR
We don't know how many admitted patients we don't receive a discharge notification for
We don't have a process for putting hospital info into ACCURO
We don't have anything in ACCURO to calculate/store LACE score
We don't know the turn around time from fax to physician to front desk
Does the hospital require info from us to accurately calculate the LACE score
No process for identifying or tracking patients with accessibility issues
We don't have standardized process/format for documenting post hospitalization appointment
No action taken on hospital report
No appointment type or reason in ACCURO designed for hospital follow - up
Pt Communication
We don't provide our pts. with any communication supports to identify them as part of CVFHT
We don't always have documentation of POA or substitution
We don't have a standardized process for hospitalist to recognize that pt. is part of CVFHT
No process for advising or dealing with our patients at discharge
We don't have any instructions for our patients to follow about what to do at discharge
If patients don't call us after discharge we don't follow - up
No patient education around their CMG condition and the need for follow - up
Readmission to hospital
No process for hospital to communicate IHP work to us
No information about specialist appointments
We don't know what the discharge disposition is - it is not listed on report or discharge notification
There is no process to transfer care to family team doctor for admitted patients
Hospital does not have clear communication path with CCAC for confirmation of services
What environment are they coming from? (ie. LTC...)
Does the hospital accurately write who the family physician is?
Front staff & nurses receive calls from famil members of admitted p but we don't have process for that
No process for communication to hospital relevant information about our patients
Hospital does not have access to current records
Medication Reconciliation
No process for hospital to communicate with us about relevant info
There is no process to communicate to our physicians
We don't receive any follow - up info on discharge reports from hospital at time of discharge
We don't receive updates on service changes or interruptions
Are we available for someone at the hospital to contact us 24/7
No process for MRP physician to communicate with family physician?
We don't have a process for being informed about discharge and we don't make ourselves available for planning discharged with hospital
Flow of information from specialist to us is not well defined
If change of MRP from specialist to internist, there is a risk of communication lapse
No process for LACE scores to be shared with us or CCAC
No notification or tracking about a change in level of our patients
No process for communicating with community pharmacy about medication changes
Competency and credentialing of service provider
CCAC Notification
Physician may not be in clinic that day
Inconsistent assignment for follow - up
Not always available appointments
Only 2 in - patient units doing LACE scores now (will expand to all units in the future)
We don't receive LACE score
We don't have established communication path with CCAC for our patients
No clear communication path with CCAC to divert admissions
We don't get notification of specialist appointments that were set up by the hospital
Alternative transportation or accessibility issues
We don't have a process for patients who can't come into the office
We don't receive timely discharge prescriptions
The electronic prescription is not available to pts on all units
No communication about follow - up tests/consults to be completed as an out patient
No confirmation of service plan
No process for CCAC that a pt is failing and that they are likely to go to the hospital
No communication with IHPS
We don't get change in status notifications
Internal Access to provider
External Hospital
External Community

CVFHT Hospital Re Admission Driver Diagram

AIM: To reduce 30-day hospital readmissions

Primary Drivers Change Concepts	Secondary Drivers Change Ideas
PD1 1/5 Identification of patients at high risk of admission	SD1 ➢ Identification of admitted patients (PDSA 1-4, Ramp 1) ➢ Re admission risk analysis of admitted patients (PDSA 1-4, Ramp 1; LACE score request to hospital; Ramp 2) ➢ Communication of timing of transition from hospital/essential information i.e. d/c summary (PDSA 2-3, Ramp 1) ➢ Assessment of the patient discharge environment (PDSA 1, Ramp 2) ➢ Documentation / Support for POA-HC or SDM
PD2 2/5 Appropriate FHT follow up	SD2 ➢ Process for post hospital discharge booking (Ramp 1) ➢ **Process for post hospital discharge assessment (Ramp 2)/patient instructions/recall (Ramp 1 & 2)** ➢ **Specific education for patients on the need for follow up related to their CMG condition** ➢ Follow up for patients isolated d/t mobility ➢ Communication with family/caregivers
PD3 4/5 Appropriate community follow-up	SD3 ➢ **Communication process with CCAC/community providers** ➢ **Update of service changes, interruptions or recommendations**

Current Process Map



Case Based Approach

- Mrs. A.C.
- 93yr female entered hospital for scheduled angiogram of the R leg. Resulted in acute ischemia.
- Admission x 6 days after R femoral emolectomy and bovine pericardial patch angioplasty.
- “hospital stay was prolonged by a few medical issues”
  - Congestive heart failure with elevated troponins
  - Recurrent hypoglycemia
  - Upper GI bleed , endoscopy and duodenal ulcer required clipping
  - Right groin infection

Admission Phase

- Clinic assist
  - Daily e-report to track all ER visits and acute care admissions
  - Receive Admission faxes from Trillium Health Partners
  - Review for COPD patients (learned from a previous QIP)
  - Identify new acute care admissions
  - Communicate email to Provider / NP to highlight those transition cases and initiate acute care summary form in EMR
- Nurse Practitioner
  - Immediate case management action in ER COPD visits
  - Monitors for new high risk admissions
    - Known complex management
    - Known frequent ER/Admissions to hospital
  - Contact MRP in hospital as required

Admission Phase Mrs. A.C.

- Front desk support noted admission to hospital on fax but not e-report (built in redundancy)
  - Other team members - Pharmacist
- Pharmacist was aware. Had a relationship from previous chronic disease discussions. Initiated communication with the daughter regarding progression of her acute care stay

Discharge Phase

- Clinic assist
  - Identify new discharges from e-Report and fax transmissions.
  - Updates NP of new discharges twice daily
  - Update acute care summary form in EMR
- Nurse Practitioner
  - Review discharge for complexity and risk
  - Comorbid disease
  - Frequent admissions/ER/FHT visits
  - Known flagged complex patient
  - Catastrophic / life altering diagnosis

Discharge Phase

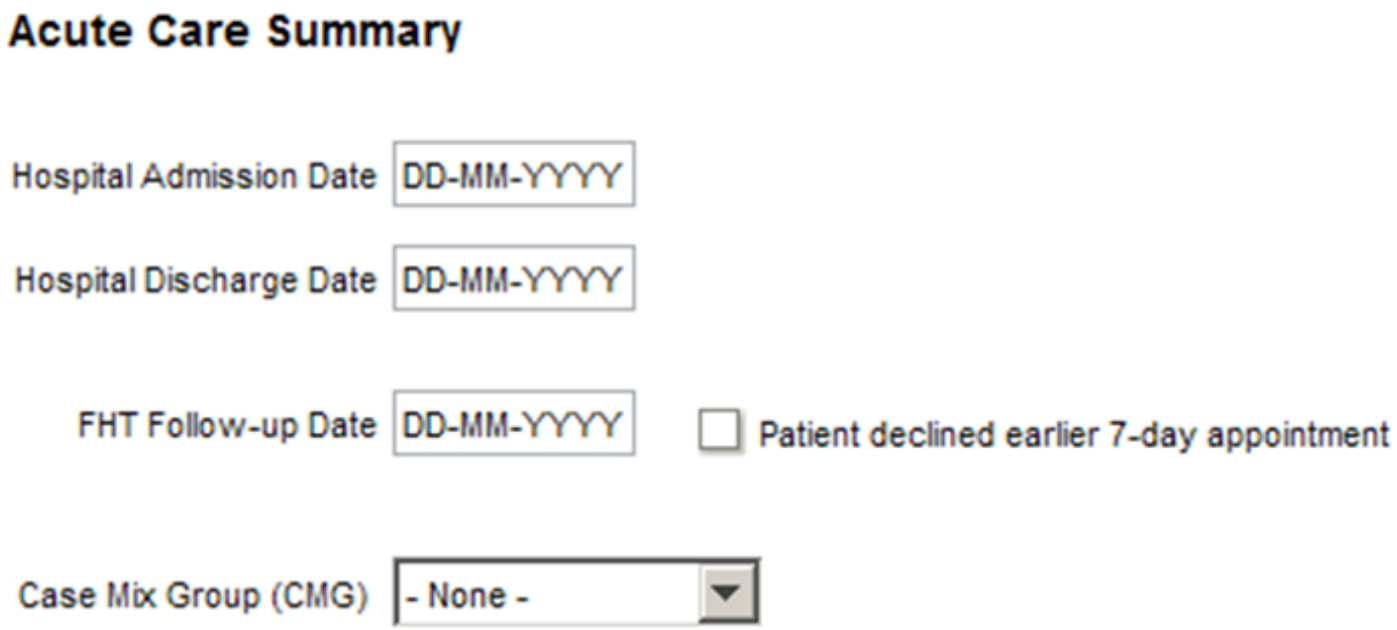
- Pharmacist
  - Observe for discharges each am
  - Initiate medication reconciliation process
  - Receive team communication in EMR regarding discharge
  - Confirm to team completion of medication reconciliation and any concerns in EMR
  - Take action immediately on any safety concerns
- Nursing
  - Receive update of discharge
  - Complex / risk of readmission identified
  - MD as opportunity to identify important issues

e-Report ER

CVFHT patients attending ER

FAMILY DOCTOR	Family Name	Given Name1	SERVICE DATE	ER DISCHARGE DATE	ADM ADMIT DATE	ADM DISCHARGE DATE	REASON FOR VISIT	DISCHARGE DISPOSITION
KENK3	Test A							
			08/09/2016	08/09/2016	08/09/2016	17/09/2016	CELLULITIS	HWC
PENJA	Test B							
			13/09/2016	13/09/2016	13/09/2016	17/09/2016	DELIRIUM / FALL	INTRN
			16/09/2016	17/09/2016			FALL HI	
ZARG	Test C							
			15/09/2016	15/09/2016	15/09/2016	17/09/2016	ABDOMEN PAIN	HWC
			16/09/2016	16/09/2016			ULTRASOUND RESULTS	

Acute Care Summary



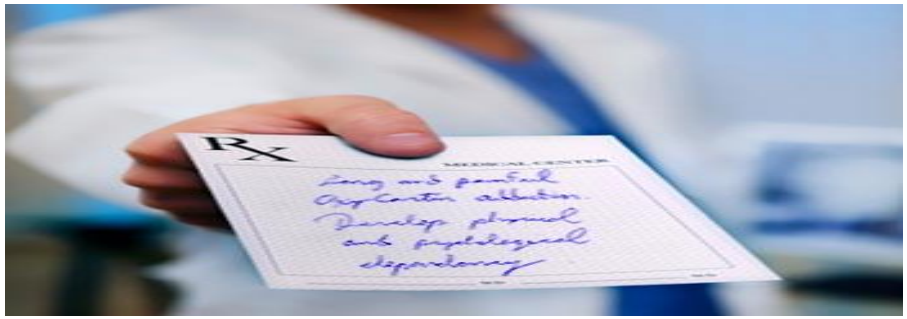
Discharge Phase – Mrs. A.C.

- Fax and e-report noted discharge destination Home
- Clinic assist update acute care summary form
  - Admission date
  - Discharge date
  - Follow up date when booked and if patient declined follow up
- Reviewed by NP / Pharmacist
- NP review and initiate team communication including physician, nursing, pharmacist, front desk of complex discharge - urgent within EMR (Accuro)
- Pharmacist initiate medication reconciliation process

Follow up Phase

- Clinic Assist
  - Book follow up within 7 days, multiple calls can be needed
  - Update team of follow up booking

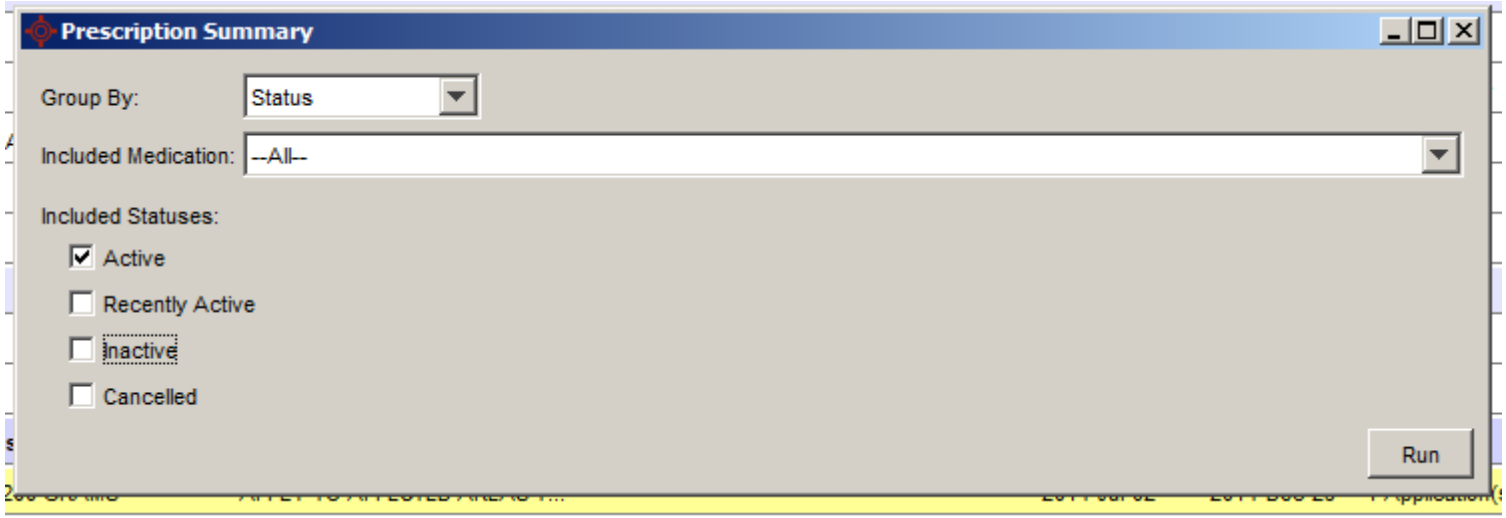
- Multiple team members involved



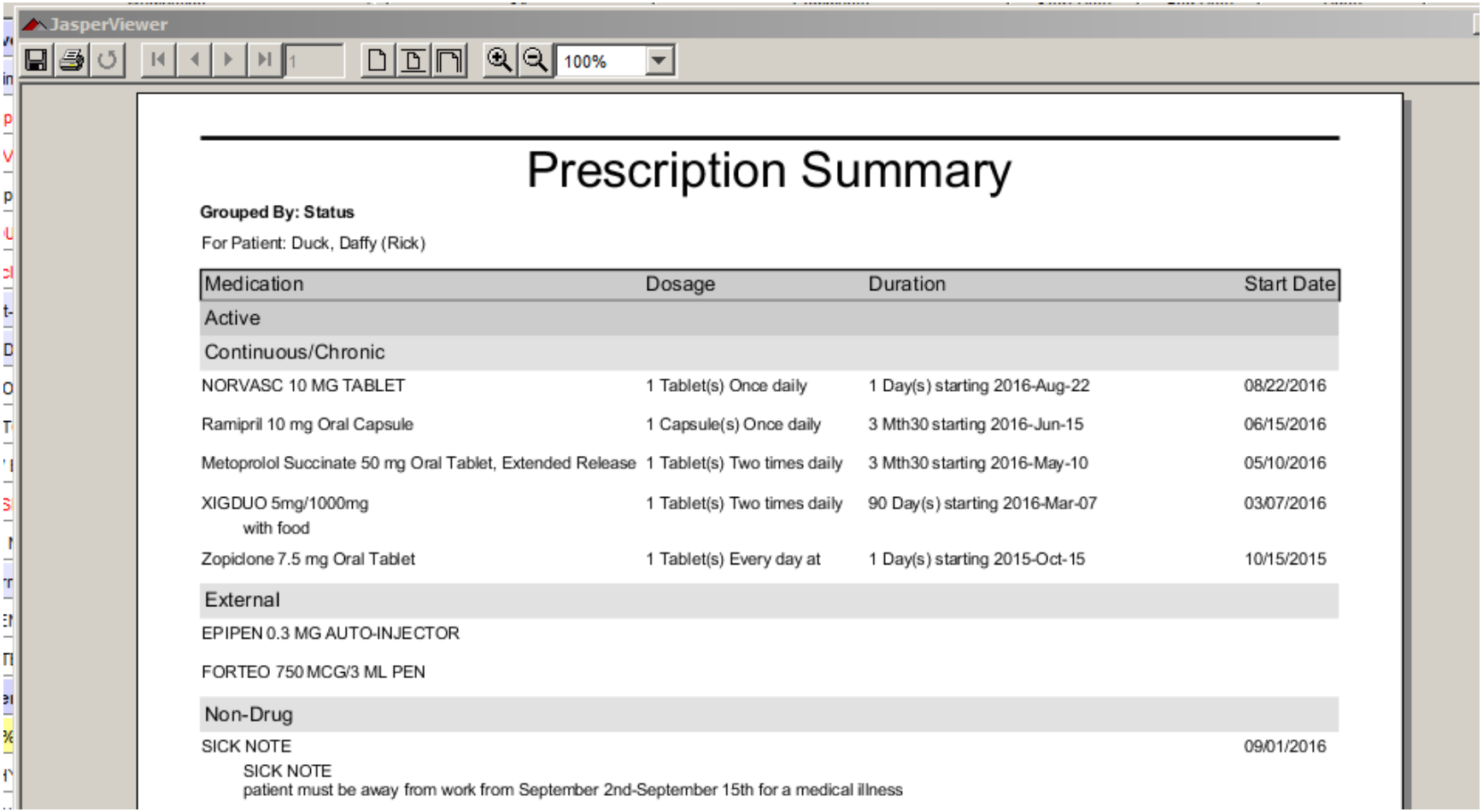
ENTER THE PHARMACIST

Discharge Medication Reconciliation

Run the current EMR medication list



Rx Summary –prior to admission



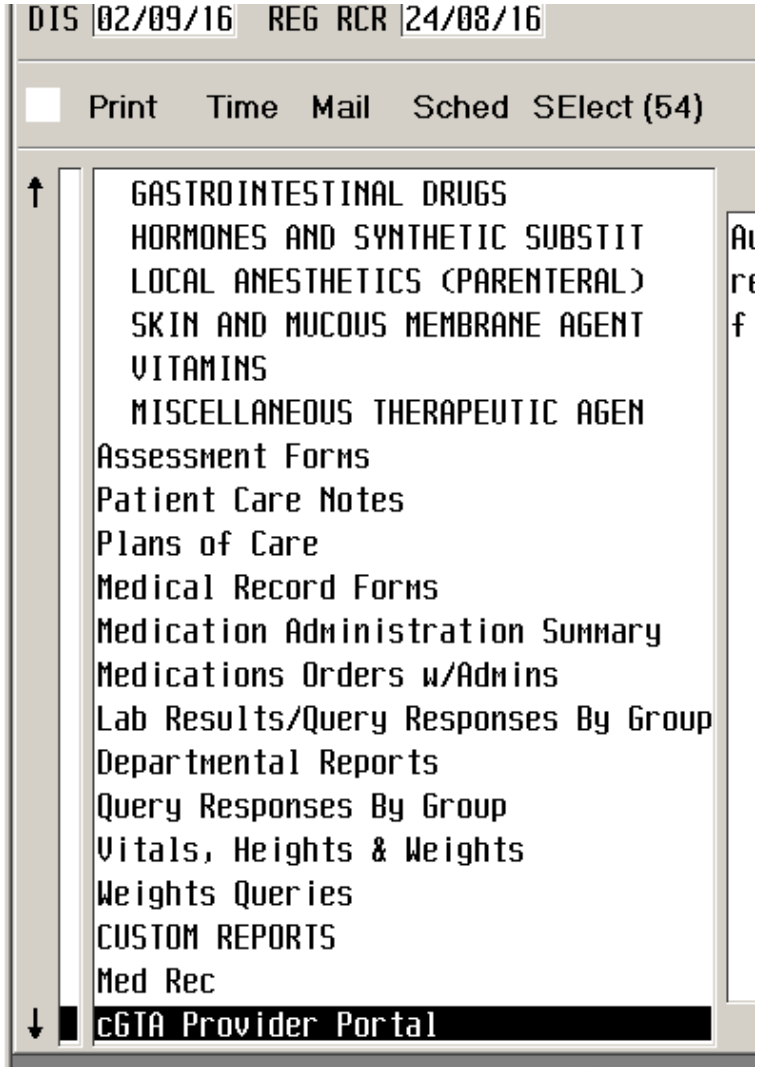
Prescription Summary

Grouped By: Status

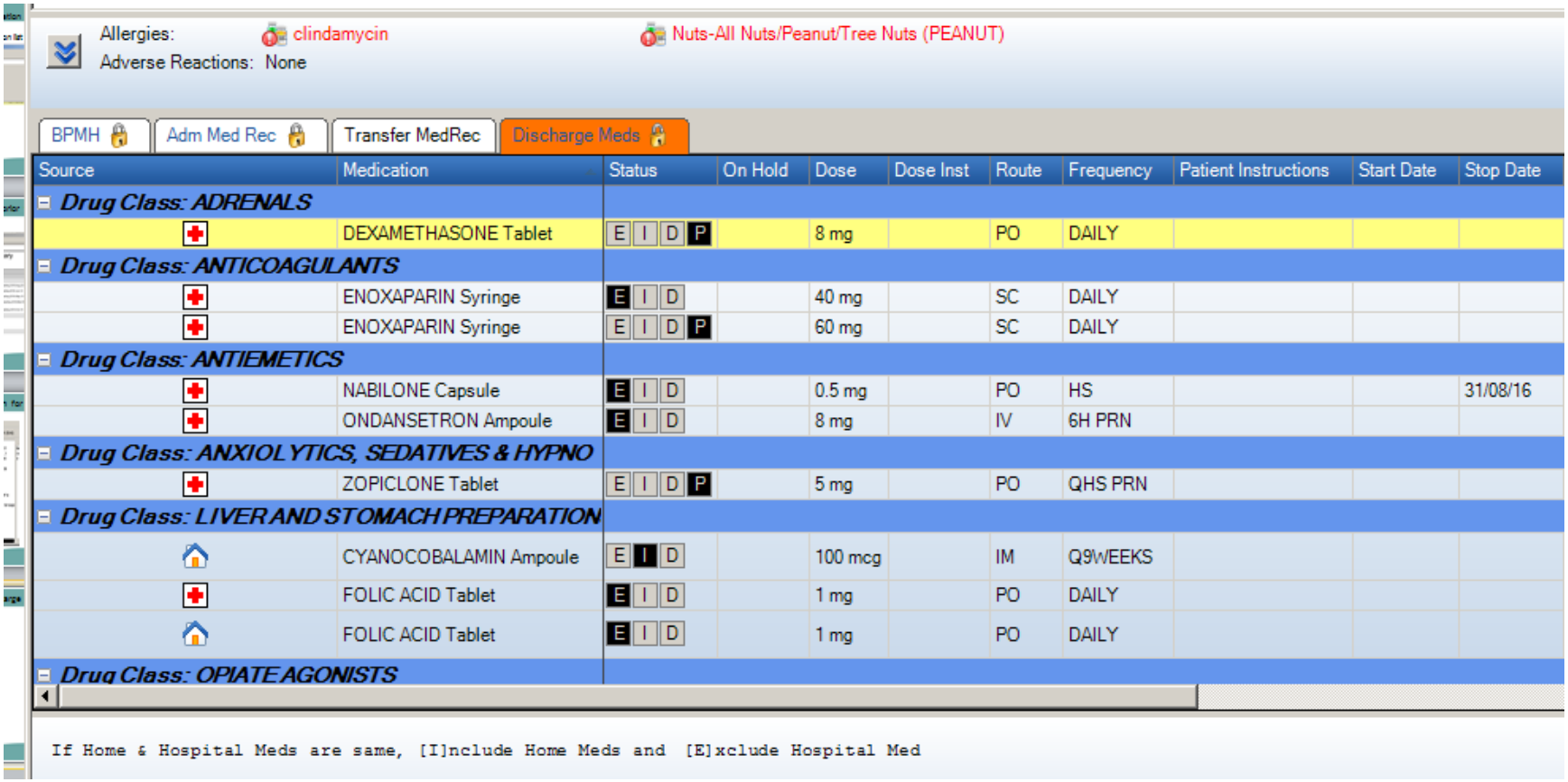
For Patient: Duck, Daffy (Rick)

Medication	Dosage	Duration	Start Date
Active			
Continuous/Chronic			
NORVASC 10 MG TABLET	1 Tablet(s) Once daily	1 Day(s) starting 2016-Aug-22	08/22/2016
Ramipril 10 mg Oral Capsule	1 Capsule(s) Once daily	3 Mth30 starting 2016-Jun-15	06/15/2016
Metoprolol Succinate 50 mg Oral Tablet, Extended Release	1 Tablet(s) Two times daily	3 Mth30 starting 2016-May-10	05/10/2016
XIGDUO 5mg/1000mg with food	1 Tablet(s) Two times daily	90 Day(s) starting 2016-Mar-07	03/07/2016
Zopiclone 7.5 mg Oral Tablet	1 Tablet(s) Every day at	1 Day(s) starting 2015-Oct-15	10/15/2015
External			
EPIPEN 0.3 MG AUTO-INJECTOR			
FORTEO 750 MCG/3 ML PEN			
Non-Drug			
SICK NOTE SICK NOTE patient must be away from work from September 2nd-September 15th for a medical illness			09/01/2016

Access Meditech for Discharge RX



Discharge RX



Allergies: clindamycin Nuts-All Nuts/Peanut/Tree Nuts (PEANUT)
Adverse Reactions: None

BPMH | Adm Med Rec | Transfer MedRec | Discharge Meds

Source	Medication	Status	On Hold	Dose	Dose Inst	Route	Frequency	Patient Instructions	Start Date	Stop Date
Drug Class: ADRENALS										
	DEXAMETHASONE Tablet	E I D P		8 mg		PO	DAILY			
Drug Class: ANTICOAGULANTS										
	ENOXAPARIN Syringe	E I D		40 mg		SC	DAILY			
	ENOXAPARIN Syringe	E I D P		60 mg		SC	DAILY			
Drug Class: ANTIEMETICS										
	NABILONE Capsule	E I D		0.5 mg		PO	HS			31/08/16
	ONDANSETRON Ampoule	E I D		8 mg		IV	6H PRN			
Drug Class: ANXIOLYTICS, SEDATIVES & HYPNO										
	ZOPICLONE Tablet	E I D P		5 mg		PO	QHS PRN			
Drug Class: LIVER AND STOMACH PREPARATION										
	CYANOCOBALAMIN Ampoule	E I D		100 mcg		IM	Q9WEEKS			
	FOLIC ACID Tablet	E I D		1 mg		PO	DAILY			
	FOLIC ACID Tablet	E I D		1 mg		PO	DAILY			
Drug Class: OPIATE AGONISTS										

If Home & Hospital Meds are same, [I]nclude Home Meds and [E]xclude Hospital Med

RN for Comlex Discharges

Increased Risk of Readmission

- Nursing process
  - Utilize Meditech or REACH portal for patient information
  - Electronic link with Credit Valley Hospital and Trillium Hospital
  - Template in Accuro

  - Review
    - LOS
    - Attending MD
    - Tests done at hospital
    - Specialist follow up
    - Calculate LACE score

Increased Risk of Readmission

- Assess mobility level, nutritional intake, cognitive issues, functional level-IADL's
- Assess need for referral to CCAC, if not done from hospital

Standardized assessment

S: Current Issue: **Initial Post Hospital Discharge Follow-up**

Most Recent Hospital Admission

Primary Provider in hospital:
Date of Admission:
Date of discharge:
LACE Score:
Primary Dx: [CHF|COPD|Diabetes|Stroke|G.I.|Pneumonia|Cancer|Other-identify]
Investigations impacting stay while in hospital:
Imaging: [CT|MRI|Echo|X-ray|U/S|none]
Labs:

Issues to follow-up

Labs:
Imaging:
Clinics:
Outpatient investigations booked: [Yes|No]; if yes then booked: [Yes|No]
Specialist / Clinic follow up advised: [Yes|No]; if yes then booked: [Yes|No]

Post Hospital Risk Screening

Medication changes while in hospital: [Yes|No]
List:
Current Medications : [>10 medications], [Yes|No]
[High Risk Medications], [anticoagulants|Insulin|Oral Hypoglycemic agents|ASA & Clopidrogel dual therapy|Digoxin| Opiods]
Referral to Pharmacist: [Yes|No|-refer if yes selected to either screening question]

Psycholgical / Mood : History of depression or anxiety disorder: [Yes|No]
History of delirium during hospital stay? [Yes|No]
Any cognitive/memory concerns?: [Yes|No]
Refer to Social Work:[yes|No| refer if yes selected to either screening question]

Cardio/Resp:
Patient required Oxygen Therapy during hospitalization: [Yes|No]
Discharged with oxygen: [Yes|No]
New or previous inhaler therapy: [Yes|No]
Condition affecting length of stay: [Asthma|COPD|Pneumonia|CHF|Tracheostomy|BiPap|
Refer to community respiratory support: [Yes|No|, Vital Air|, ProResp|, Medigas|, refer if yes selected]

Functional Enquiry
Lawton IADL scale
Requires assistance with the following: [Use of telphone|Shopping|Food preparation|Housekeeping|Laundry|Transportation|Responsibility for own medications|ability to handle finances|minor home maintenance|yardwork]
ADL
Requires Assistance the following: [Bathing|Dressing|Grooming|Oral Care|Toileting|Transferring|Walking|Climbing Stairs|Eating]
Consider refer to community supports: [Yes|No|refer if yes selected to any screening question]

Follow up Phase

- Nurse Practitioner
  - Work through issues in real time. Collaborate with all team members
  - Monitor process until follow up is completed.
  - Take action in urgent situations - need for home visit / telephone case management, complex support community nursing as required
  - Follow up in office if own physician is not availble
- Physician
  - Provides leadership support in complex issues
  - Provide follow up to own or any patient in clinic access
  - Supports all team members, scheduling conflict, Rx issues, medical issues

Roadblocks

-Can only access THP- CV site in Meditech

- Not all Meditech discharges have a discharge RX

-Unable to access other Ontario discharges

-Some discharges are out of province and out of country

•Next Steps

-Call Pharmacy (not always on file)

-Call patient

- Collaborate closely with NP, GP, Pharmacist , Unit Assistant

- Gaps in service in current discharge system

- Target: GP/NP follow-up in seven days post hospital discharge, in line with MOHLTC guidelines

Follow Up Phase Ms. A.C.

- NP identified discharge as complex
  - Multiple comorbid illness, functional decline, delirium
  - Close contact with Pharmacist, Nursing and Physician
- Pharmacist contacted patient / daughter to discuss medications at discharge. Noted multiple concerns.
  - Complex discharge, questions regarding groin wound, dressings, medication changes, declined mobility and altered cognition
- Nursing initiated complex follow up assessment
  - Not able to mobilize to clinic for follow up, fluctuating cognition, d/w MD and initated CCAC referral

Follow Up Phase Ms. A.C.

- NP attended home for assessment same day
  - Communicated assessment findings with MD
  - Wound orders, labs orders, I+O cath by community nursing for urinalysis and C&S
  - Daily telephone follow up x 3 days
  - Required IV Ceftriaxone for wound infection and UTI
- MD provided complex case support to team members
- Support to community nursing
- Patient recovered at home. Avoided readmission to hospital. Family and patient were grateful of team based care

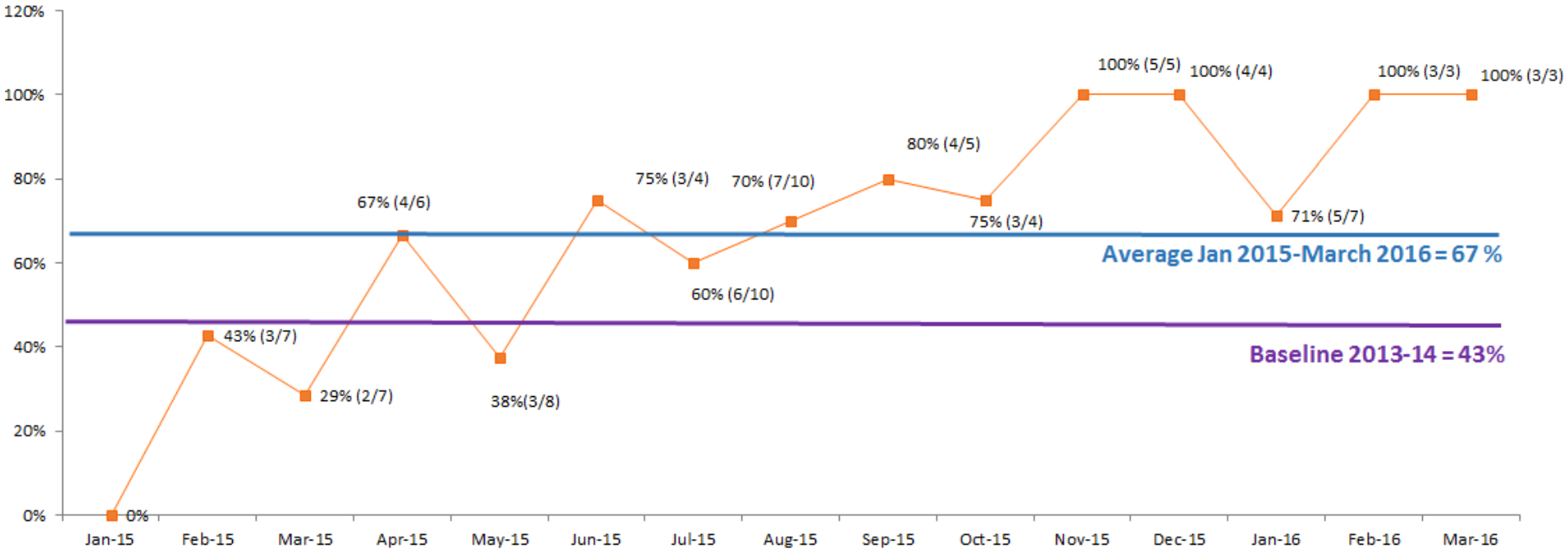
Team Based Improvements

- Timely identification of admission / discharge
- Development of a team process for tracking admissions and discharges via acute care summary imbedded in our EMR
- Accurate identification of those who would benefit from enhanced team focus
- Standardization of the post-hospital assessment of higher risk patients

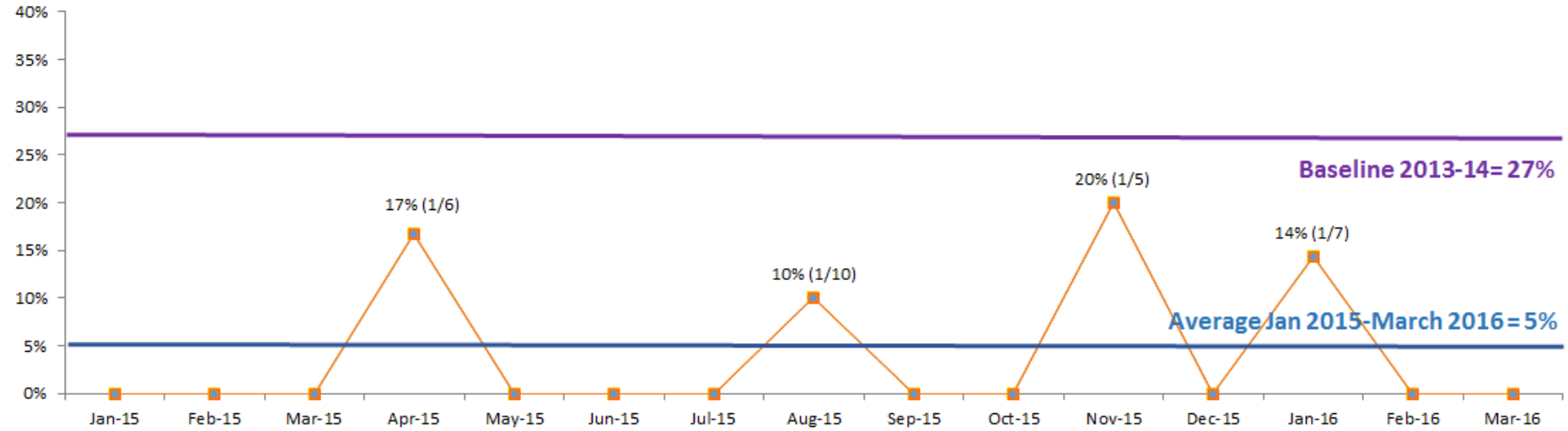
Team Based Improvements

- Identifying and improving care transitions
- Improved chronic disease case management from hospital from primary care
- Measurement process within the EMR
- Familiar provider for Post-discharge follow up
- Follow up is team's responsibility

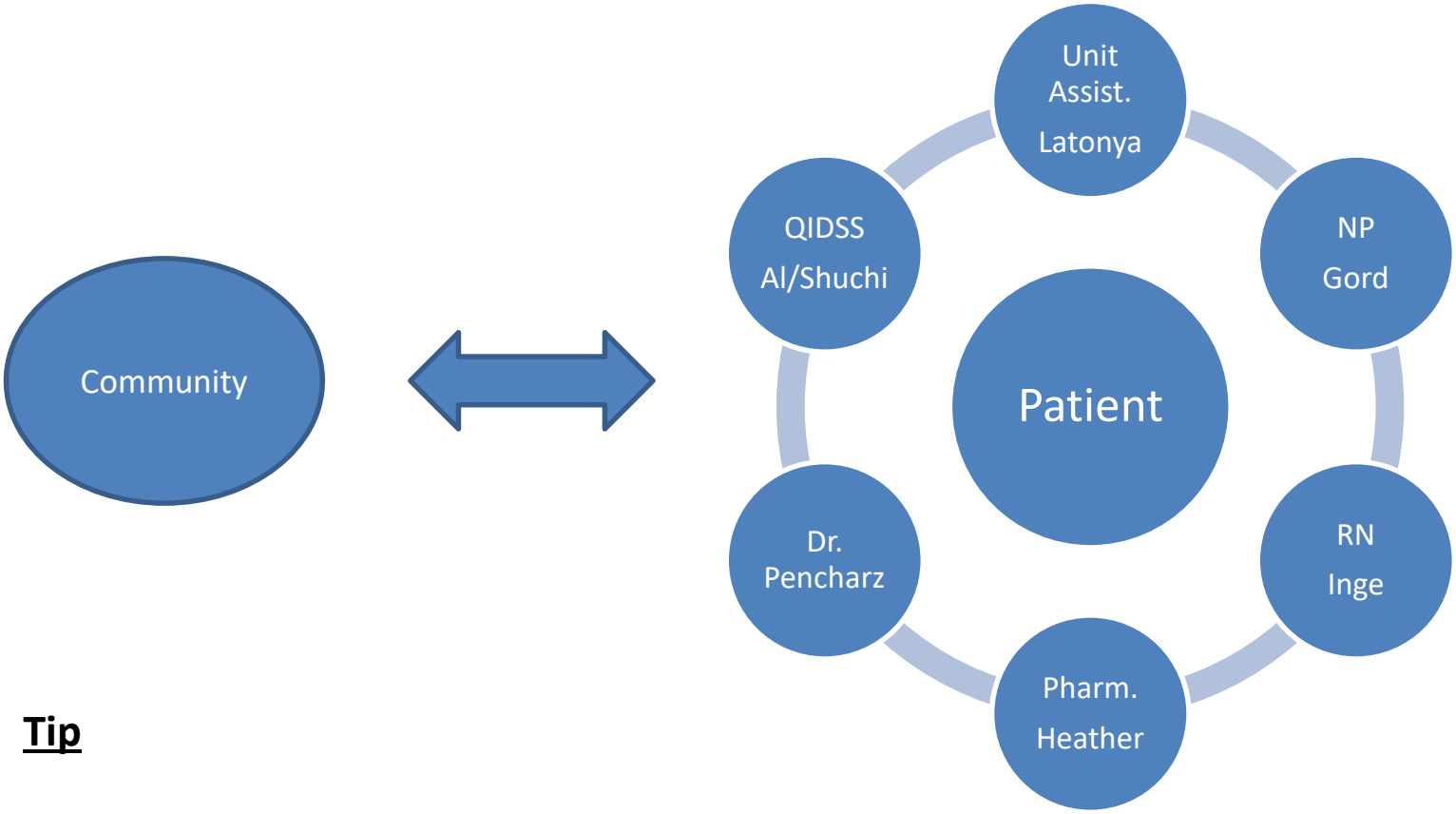
% patients who had follow up with an MD/NP/RN within 7 days post discharge (CMGs):



% Readmissions within 30 days (CMGs)



Team Approach



Tip

"The people that do the work need to be the ones to change the work."

Questions?