The Development and Success of a Transitions of Care Program

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Disclosure

- Abigail Dee Antigua, PharmD, BCCCP
- Christine Corsberg, PharmD, BCPS

- Drs. Antigua and Corsberg have no relevant financial or nonfinancial relationships to disclose.

Objectives

- 1. List the goals outlined by the Centers of Medicare and Medicaid Services (CMS) and The Joint Commission (TJC) for transitions of care (TOC).
- 2. Describe the role of pharmacists in the advancement and implementation of a TOC program.
- 3. List and describe the metrics used for the TOC program including medication-related interventions, pharmacy services time, recommendation acceptance rates by other providers, and overall rates of readmission.

Transitions of Care

- "The movement of patients make between health care practitioners and setting as their condition and care needs change during the course of a chronic or acute illness.."

Coleman EA et al. Journal of the American Geriatrics Society. 2003; 52(4): 556-557.

The Impact of Transitions of Care

- 72% of post-discharge adverse events are medication related
- 60% of all medication errors occur during times of care transition

"Many patients are discharged without understanding their illness or treatment plans, or inadvertently discontinue important medicines needed to stay well"

Jencks SF et al. N Engl J Med. 2009; 360(14): 1418-1428.

The LARGEST Impact

Unplanned Hospital Readmissions

$15B

2005 data

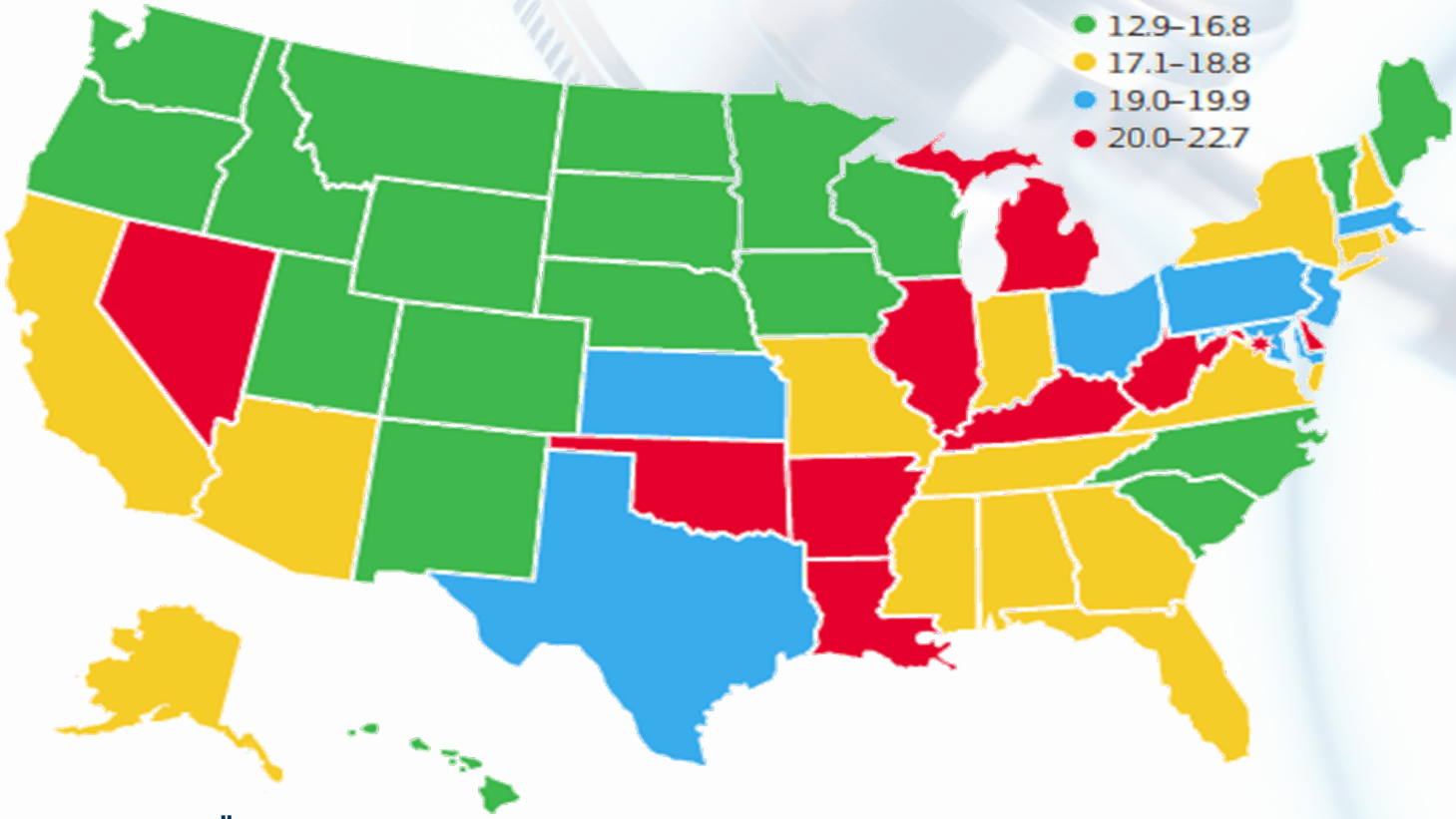
76% Readmissions are Preventable

=$12B

http://go.nationalpartnership.org/site/DocServer/Healthy_Hospital_Initiative_Fact_Sheet_2011.pdf?docID=8484

Hospital Readmissions

Medicare 30 day readmissions as a percentage of admissions in 2009



"Improving Care Transitions," *Health Affairs*, September 13, 2012, Available at http://www.healthaffairs.org/healthpolicybriefs/

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Why a New Model?

- Institute of Medicine Report 2001, "Crossing the Quality Chasm"
  - Less than 50% of patients with major chronic illness receive accepted treatments
  - Less than 50% have satisfactory disease control
  - Focus on episodic and continuous care
  - Little attention given to the patient's knowledge, skills, behavior in managing their own illness

Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington DC. National Academy Press; 2001

The “Big 6 Aims”

https://www.cms.gov/Medicare/Quality-Initiatives-Patient-AssessmentInstruments/QualityInitiativesGenInfo/Downloads/CMS-Quality-Strategy.pdf

Game Changer

- "Medicare is no longer a program that just pays the bills"
  - Dr Patrick Conway, Chief Medical Officer, CMS

Hospital Readmission Incentives

Promises

- Hospitals receive higher Medicare payments by achieving/exceeding quality measure performance targets

Pressures

- 1% payment reduction to hospitals with re-admission rates above particular targets for **heart failure, heart attack, pneumonia**
- 3% increase in penalties for COPD or CV disease

COPD: Chronic Obstructive Pulmonary Disease, CV: cardiovascular

Rochester-Eyeguokan CD, et al. Pharmacotherapy. 2016; 36(1): 117-33

Hospital Readmissions Reduction Program

Year	2013	2014
Maximum Penalty (%)	1%	2%
Conditions	Heart attack, heart failure, pneumonia	COPD
Number of Penalized Hospitals	2213	222
Total Penalties	$280,000,000	$227,000,000
Average Penalty/Hospital ($)	$126, 525	$102,022
Average Penalty/Hospital (%)	0.42%	0.38%

http://www.hin.com/library/registercaretrans2013.html. Accessed May 1, 2017.

Transitional Care

- "A set of actions designed to ensure the coordination and continuity of healthcare as patients transfer between different locations or different levels of care within the same location"

https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/Transitional-Care-Management-Services-Fact-Sheet-ICN908628.pdf

National Transitions of Care Coalition (NTOCC)

- Implementation and evaluation outline

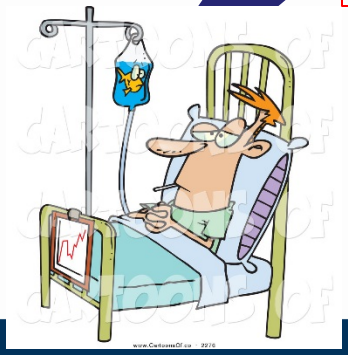
- Multiple resources developed:
  - TOC checklist
  - Interventions for low health literacy
  - Standardized forms
  - Metrics for tracking outcomes

The TOC Pathway

Discharge and Follow-up

Communication

Medication



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Medication Evaluation

- Comprehensive evaluation of a patient's medication regimen any time there is a change
- **Goals:** avoid or deter and correct medication errors
- Should include comparison of existing and previous medication regimens
- Should occur at every care transition involving new medication orders, re-written or adjusted existing orders, or if the patient has added nonprescription medications to self-care

Chen D, Burns A. Summary and recommendations of ASHP-APhA Medication Reconciliation Initiative Workgroup Meeting, Feb 2007.

The Role of a Pharmacist

6/05/2014 @ 8:32AM 13,133 Views

Meet The Newest Member Of Your Personal Healthcare Team

Robert J. Szczerba , CONTRIBUTOR

As most patients in the American healthcare system know, it's gotten harder and harder to maintain regular, detailed communication with your doctor. At least in terms of medication, pharmacists have begun to address this gap through regular, direct contact with their patients. In Medication Therapy Management (MTM), a pharmacist evaluates a patient's prescriptions and how the patient is feeling to identify and resolve issues including: untreated conditions, drug interactions, adverse drug reactions, inappropriate drugs or doses, and whether a patient is taking the medications as prescribed. The pharmacist is rapidly becoming the newest member of your

Pharmacist MTM services yielded 86% reduction in readmissions compared to the control group.

Patients receiving MTM were 3x more likely to remain out of the hospital after 60 days.

https://www.forbes.com/sites/robertszczerba/2014/06/05/meet-the-newest-member-of-your-personal-healthcare-team/#2fd402066132

Challenge and Opportunities

- **Challenge**
  - Less than 1/3 of hospitals involve their pharmacists in discharge counseling or post-discharge follow up with high risk patients

- **Solution**
  - Connectivity
  - Cooperation
  - Care coordination

Who to Target?

- **Readmission Diagnoses**
  - Heart Failure
  - COPD
  - Heart attack
  - Pneumonia
- **Complex Medication Regimens**
- **Payers (?)**
- **Predictive Modeling**

The TOC Pathway

Discharge and Follow-up

Communication

Medication

Proper Communication Flow

Patient arrival to hospital

Hospital accepts patient for admission **with** information

Patient identified as a high risk patient

More data obtained about patient

Obtain information regarding medications

Pharmacist provides TOC patient care per policy

Plan for discharge of patient

Communicate information identified with outpatient facility

The TOC Pathway

Discharge and Follow-up

Communication

Medication

Discharge Information

- Patient demographics
- Contacts
  - Primary care provider
  - Hospital coordinator
  - Non-professional caregiver
- Medication list
- Diagnoses
- Lab values
- Hospital-identified issues for resolution

North Florida Regional Medical Center

- 432-bed community hospital located in Gainesville, FL
- 2015 and 2016 CHF 30-day readmission rates: 25-35%
- Pharmacy-driven TOC program initiated in August 2016

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The TOC Program

NFRMC

University of Florida College of Pharmacy

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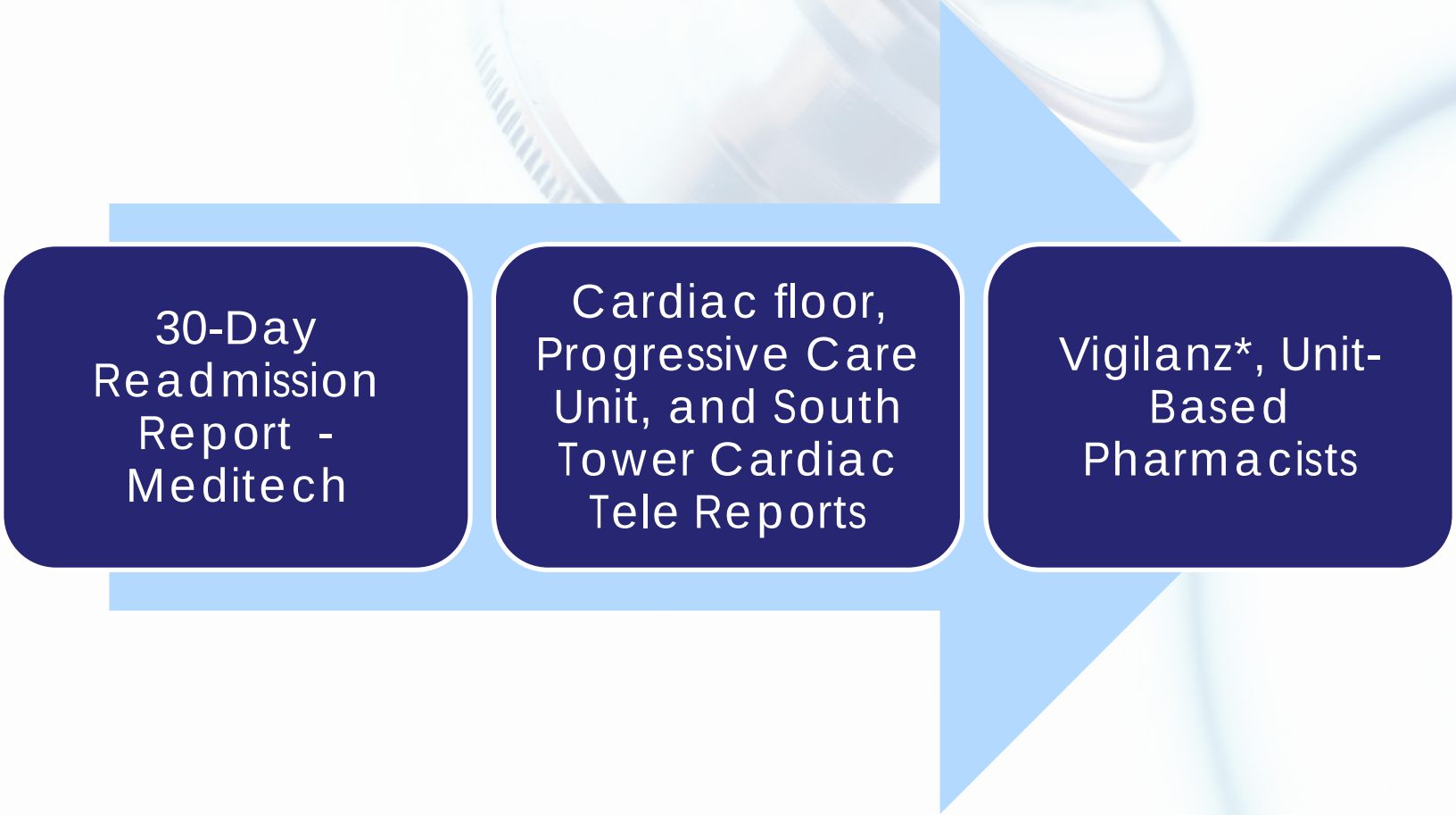
TOC Selection of Patients



Pharmacy Interventions

1) Incorrect drug
2) Incorrect dose
3) Incorrect route
4) Incorrect frequency
5) Incorrect instructions
6) Omission of medications
7) Medication on home list that patient does not take
8) Duplication of therapy
9) Lifestyle/symptom management counseling needed
10) Financial issues concerning medications
11) Counseling on patient's new medication needed
12) Missing Adverse Drug Reaction/Allergies
13) Medication therapy optimization

EXAMPLE PATIENT CASES

Patient A Information

Intervention Type 1: Incorrect Drug

- EH is an 82 YO white male, admitted for shortness of breath and past medical history of COPD
- EH is a senior healthcare center patient
- Home medication reconciliation showed the patient taking fluticasone (Flovent) and albuterol (Proair) for COPD
- Pharmacy utilized medication claims, and last senior health care center note to review patient medications

Patient A Intervention

Intervention Type 1: Incorrect Drug

- Patient takes fluticasone (Flonase) intranasally, and albuterol (Proair) for COPD which he uses multiple times a day
- Spoke with pulmonologist and clarified patient had only albuterol (Proair) for COPD medications.
- After review of patient with pulmonologist pharmacy suggested addition of fluticasone/salmeterol (Advair) for maintenance therapy to prevent re-admission

Patient B Case

Intervention Type 2 and 6: Incorrect dose and Omission of Medication

- EB is an 80 YO WF readmitted within 27 days of discharge for CHF
- Per cardiology, patient was instructed to start sacubitril/valsartan (Entresto) at follow-up visit, but she only took one dose due to “severe headache”
- Home medication list updated with metoprolol succinate 50 mg daily and lisinopril 10 mg daily.
- Incorrect doses of furosemide 40 mg changed to 80 mg daily, and pravastatin 10 mg changed to 20 mg daily

Patient C Information

Intervention Type 4: Incorrect Frequency

- DK is a 59 YO white male admitted for shortness of breath and a past medical history of COPD
- Pt smokes 10-15 cigarettes a day
- Medication reconciliation states patient takes fluticasone/salmeterol (Advair) 1 puff BID, albuterol/ipratropium (DuoNeb) 3 mL QID, and albuterol (Ventolin) 1 puff q4h PRN

Patient C Intervention

Intervention Type 4: Incorrect Frequency

- Pharmacy utilized medication reconciliation, history and physical and patient interview to review medications
- Patient reports taking
  - Fluticasone/salmeterol (Advair) 2 puffs BID
  - Ipratropium/albuterol (Duoneb) 6-7 times a day, or every 2 hours
  - Albuterol (Ventolin) – 4 puffs at a time, he went through his 3 month supply in 2 weeks
- Overall, patient use of medications leaves him without COPD treatment for 2 months at a time
- Sought pulmonologist to inform him of gap in prescribing therapy. Pharmacy also counseled patient on correct frequency and inhaler techniques

Intervention Type 6 and 10: Omission of Medication and Financial Issues

Patient D Information

- TF is a 59 YO white female, re-admitted for COPD exacerbation
- Patient last smoked on 9/6 and is highly motivated to continue quitting
- Patient has albuterol nebulizer at home

Intervention Type 6 and 10: Omission of Medication and Financial Issues

Patient D Intervention

- TF has albuterol nebulized solution at home, this is what she was discharged on from last hospital admission
- Pharmacy contacted physician to inform them that TF needs a new prescription for albuterol (Proair) rescue inhaler when she is not at home
- TF has no maintenance inhaler, and cost of inhalers was a concern
- Pharmacy provided TF with tiotropium (Spiriva) for free as outpatient through Rxassist for one year in order to prevent re-admission

Patient E Information

- WC is a 72 YO white female
- She was admitted for decompensated heart failure and pneumonia
- Patient past medical history significant for gastrointestinal hemorrhage with apixaban (Eliquis) and rivaroxaban (Xarelto)

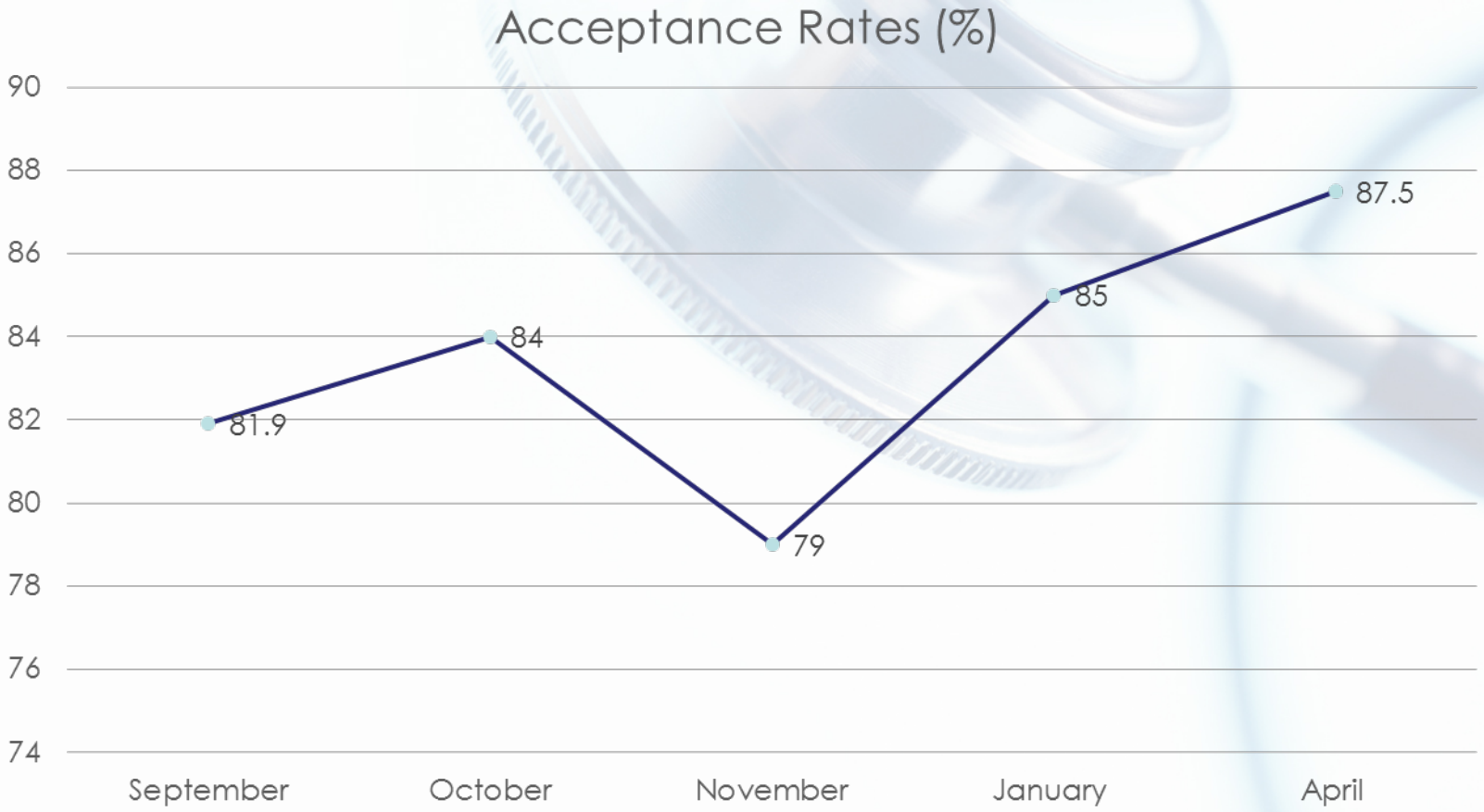
Intervention Type 12: Missing ADR/Allergies

Patient E Intervention

Intervention Type 12: Missing ADR/Allergies

- Entered patient room to counsel on heart failure and patient was very upset about rivaroxaban currently on her medication list inpatient.
- Physician was notified of past medical history and rivaroxaban was discontinued. Warfarin initiated with enoxaparin bridge treatment dose due to recent DVT on 9/12.
- Pharmacy updated adverse drug reactions in patient profile

Student-Provider Recommendations



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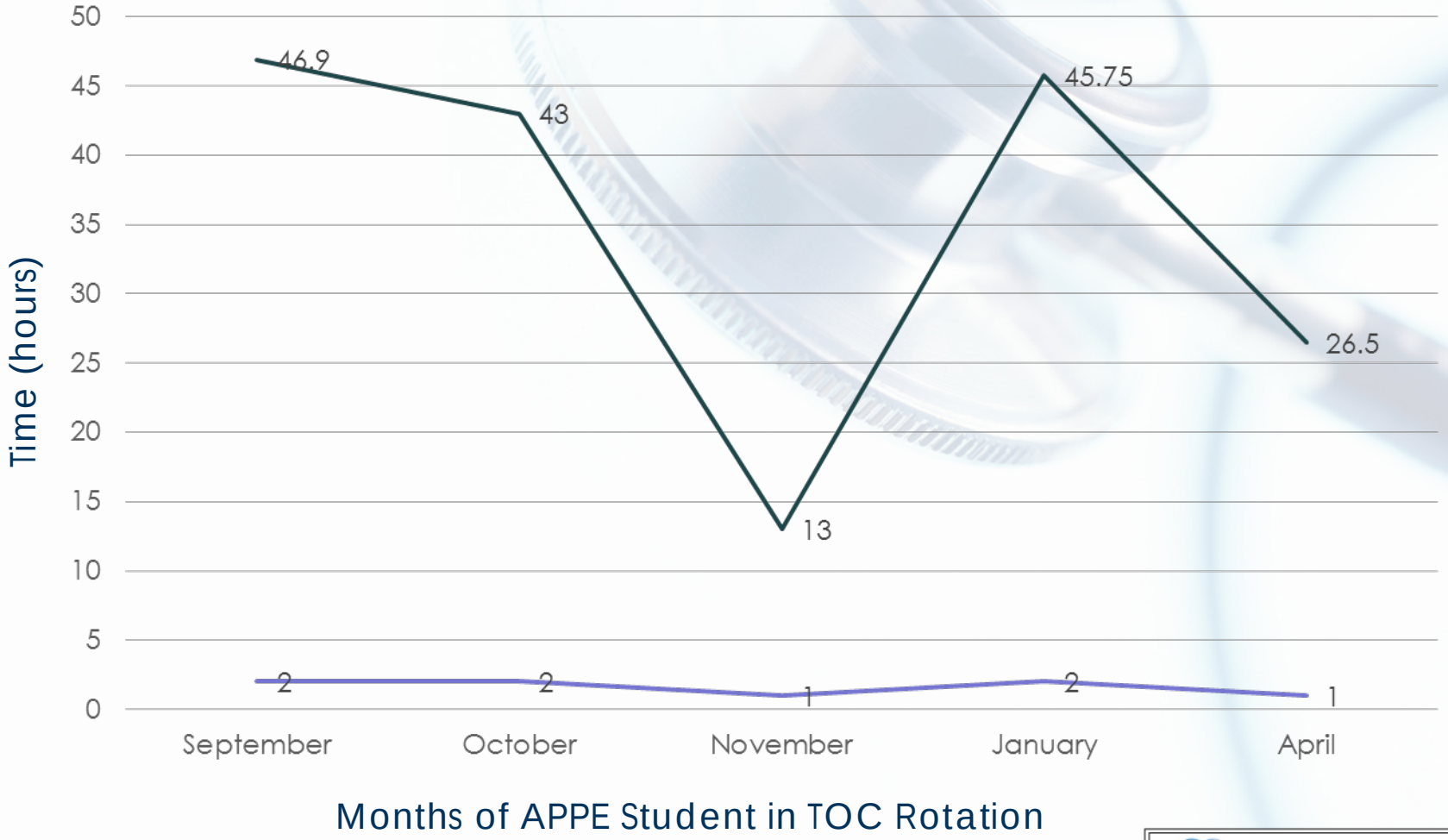
Total Pharmacy Times Spent with Patients



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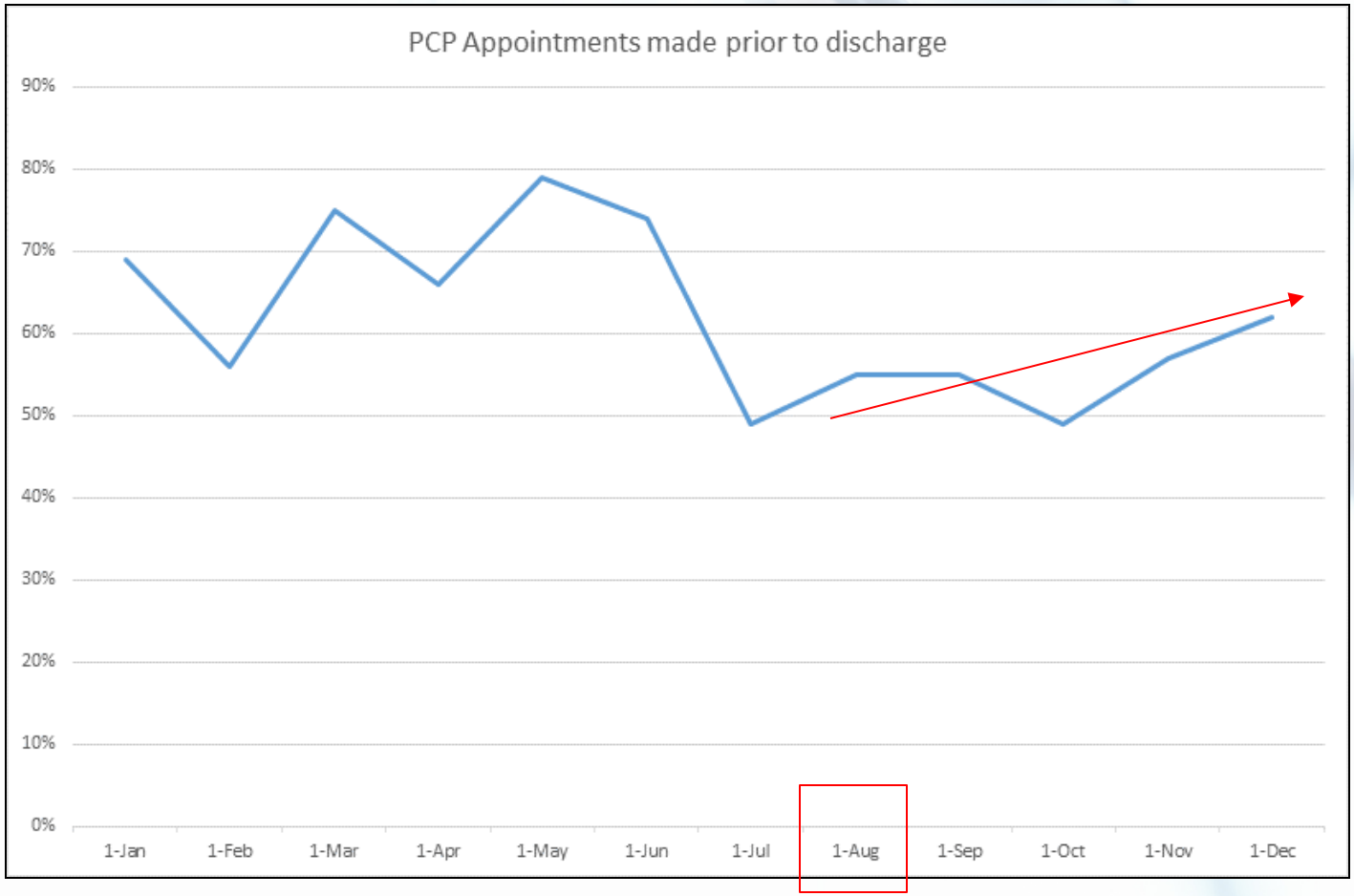
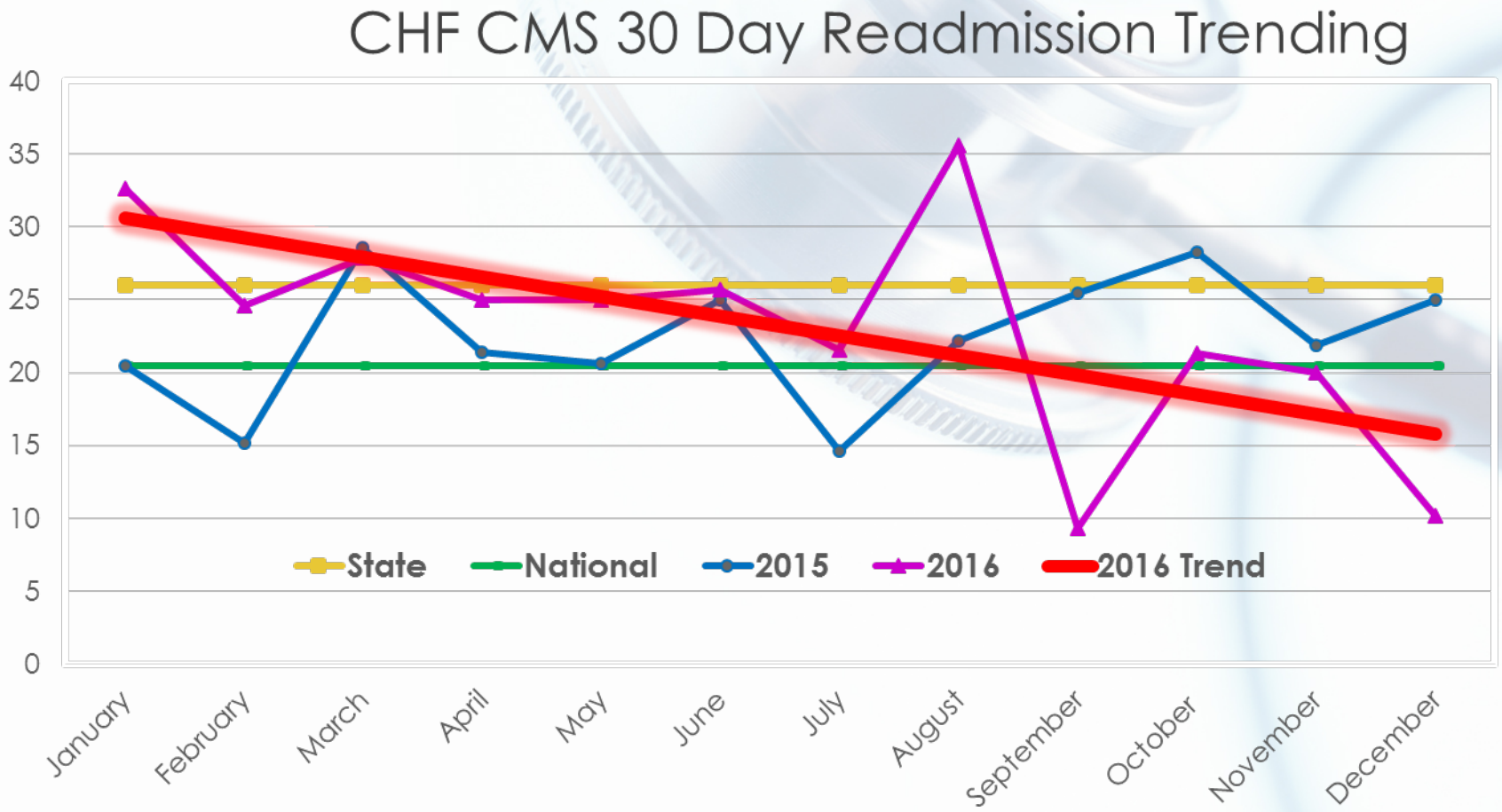
TOC Readmission Result

- December readmissions
  - 22/89 (25%) total patients seen by the pharmacy interns were readmitted within 30 days of discharge
  - 7/89 (8%) were readmitted with high risk disease state intervened on by pharmacy intern (COPD or Heart failure)

Primary Care Physician Visits



Readmission Trending



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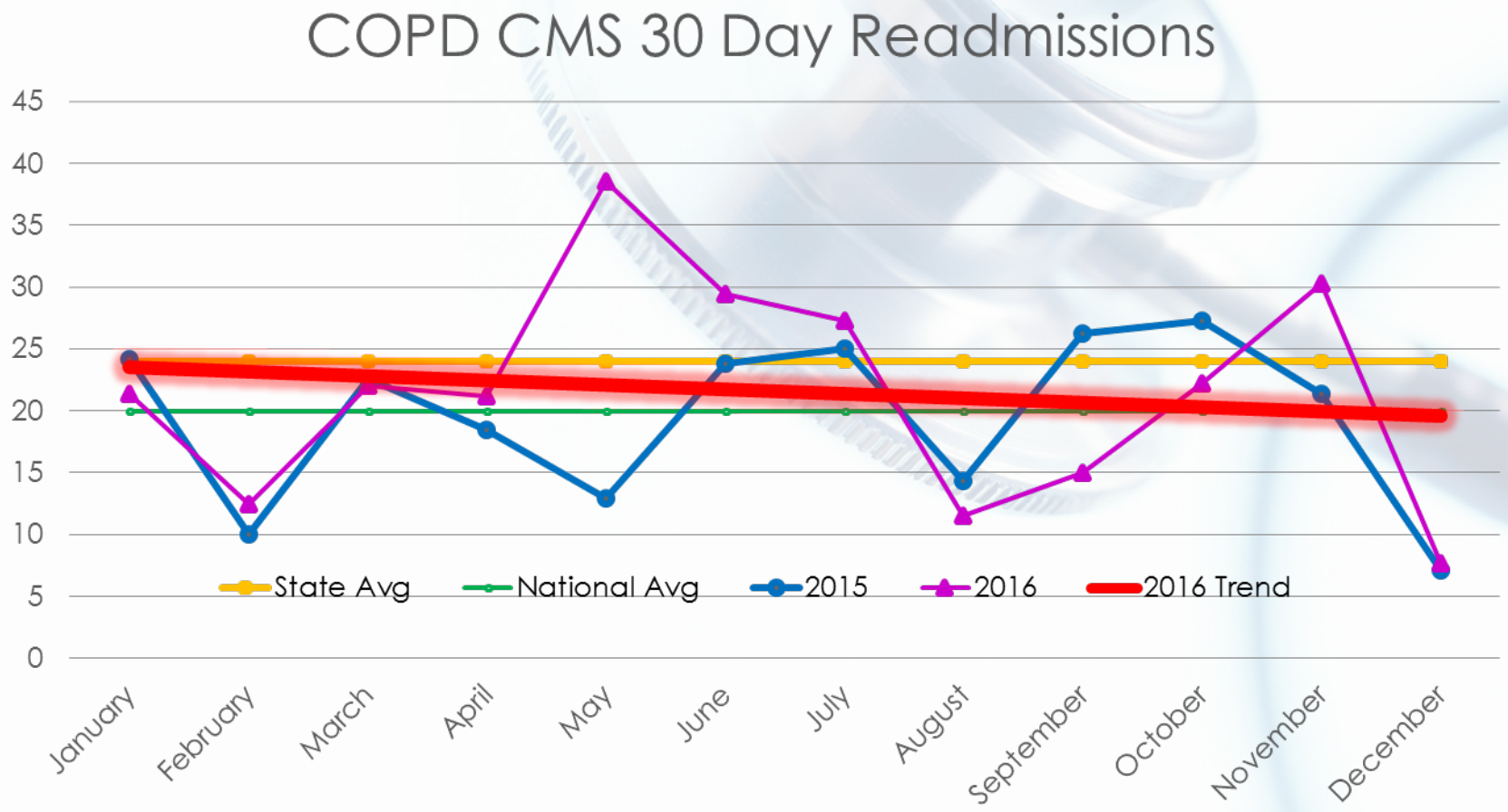
Readmission Trending



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Next Steps for NFRMC's TOC Program

- Increasing the recognition of the TOC program
  - Improving communication between disciplines
- Strengthen process for new heart failure consult

Conclusions

- Established role for pharmacists in TOC
  - Roles to be expanded
- Multiple interventions shown to be beneficial
- Implementing program may be challenging
  - Requires focused approach with proper personnel
  - Know metrics before implementing

Acknowledgements

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