

# Medication Management:

Functional Cognition in the Acute Care Setting

# Presenters

- **Kasey Canala, OTR** graduated from West Virginia University and has been an Occupational Therapist with OhioHealth for over 3 years. Kasey is currently the program coordinator for cardiovascular at Riverside Methodist Hospital, and has been involved in a number of quality improvement projects to better standardize care provided for the surgical and general cardiac population. She also has special interest in functional cognition and recently presented a poster at AOTA titled: “Medication Management for the Surgical Cardiovascular Patient in Acute Care.”
- **Derek J. Noll, OTR/L** is a 2004 alumni of the Master of Occupational Therapy Program at Chatham University in Pittsburgh, PA. Derek has worked clinically in IPR, SNF, and Acute care during the course of his 16+ year career. An OhioHealth employee for the last 9 years, Derek’s current role is as an Administrative Manager for Occupational Therapy at Grant Medical Center and for Rehabilitation Services at Doctors Hospital. Derek has been involved with the Critical Care Pilot at Riverside, assisted the team with the operationalization of the Why Not Home program, been a part of the “Up and Dressed” initiative in orthopedic care, and served as a facilitator in the collaboration with Dr. Wolfe, Dr. Schwartz, and pharmacy stakeholders in the implementation and deployment of the medication management assessment initiative at Riverside Methodist Hospital and Doctors Hospital.

# Learning Objectives

1. Recognize the relationship between IADL deficits and readmission risk.
2. Identify tools intended for the measurement of executive function / IADL performance.
3. Demonstrate the basic principles of administration of the EFPT.
4. Identify the scoring rubric for the EFPT.
5. Express the clinical relevance of test scoring to interdisciplinary stake holders.

# Background

# Cardiovascular Care and Bundle Payment Project at Riverside

- Bundle care payment- challenged OT to elevate their role in decreasing SNF utilization and readmission to improve outcomes, satisfaction and overall cost to the patient.
- Goal: Decrease readmission due to medication non-adherence in post-surgical cardiovascular population.

# Medication Management Poster Presentation at AOTA (April 2019)

## Medication Management for the Surgical Cardiovascular Patient in Acute Care

Linsey Gazdik, OTR/L; Kasey Feiertag, OTR/L; Lindsey Logsdon, OTR/L; Derek Noll, OTR/L and Jason Shriver, OT/L  
OhioHealth Riverside Methodist Hospital

### Background

Medication non-adherence in elderly population is now approaching 50%<sup>6</sup>

- Results in poorer health outcomes, disability, institutionalization and even death<sup>7</sup>
- Researchers estimate that clients must take about 80% or more of their medication to receive the benefits<sup>3</sup>

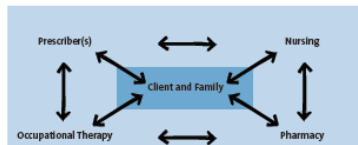
Multiple disciplines within the inter-professional team play a role in facilitating medication adherence post discharge. These include: prescriber, pharmacy, nursing and occupational therapy.<sup>8</sup>

#### Initial Goal:

- Decrease readmission due to medication non-adherence in post-surgical cardiovascular population.
- Bundle care payment- challenged OT to elevate their role in decreasing SNF utilization and readmission to improve outcomes, satisfaction and overall cost to the patient.

#### What is occupational therapy's role?

- Medication management is considered a health management and maintenance instrumental activity of daily living (IADL)<sup>2</sup>
- To manage one's medications, a client must negotiate with the doctor, fill (and refill) the prescription, interpret complicated health information and take the medication on a daily basis.<sup>4</sup>
- What OT can address within our scope of practice- overall cognition, sustained attention, short/long term memory, health literacy, hand strength, fine motor control, visual impairments, problem solving
  - Ability to modify task and environment



American Occupational Therapy Association. (In press). Occupational therapy's role in medication management. *American Journal of Occupational Therapy*, 71(Suppl. 2)

### Current state

- In the surgical cardiovascular population, occupational therapy addressed:
- ADLs- use of AMPK 6 Click to show prior and current function.
  - Education provided on sterility precautions
  - Functional transfers, mobility and self-care in regards to precautions
  - Limited written and verbal family training
  - Complex narrative medication instructions in after visit summary



### Goals

- Develop task to accurately evaluate patient capability to complete medication management appropriate to acute care setting.
- Develop interdisciplinary approach to the evaluation, treatment and education on medication management.
- Gain more thorough understanding of roles of OT, pharmacy, nursing and advanced practice providers to develop more effective multi-disciplinary approach to medication management

### Analyze

- Completed literature review on medication adherence and the role of occupational therapy
- Met with home health care to understand OT intervention opportunities in medication management
- Improved understanding of multidisciplinary approach to medication management in acute care
- Utilized traditional EFPT medication management task with small cardiovascular patient sample

**75% fall rate amongst patient test sample with a 2 medication EFPT  
Pharmacy reports discharge regimen typically 6 new medications.**

- Research
  - Dr. Carolyn Baum EFPT manual
  - Dr. Jaclyn Schwartz dissertation and AOTA Position Paper
  - Review of Hopkins Medication schedule, Pillbox test, EFPTe
  - Dr. Tim Wolf- EFPTe<sup>8</sup>
  - Short/long Pillbox test vs. EFPTe
  - Collaboration with Dr. Wolf allowed minor changes to standardized EFPTe task

### Improve

- Collaborated with pharmacy to identify commonly prescribed medications including frequency and dosage to create greater test ecological validity within target population.
- Researched compensatory treatment options
- Collaborated with pharmacy to develop medication grid- pictured
  - Occupational therapy used for treatment
  - Pharmacy initiated discharge education to patient and caregiver.
  - Provided personal medication grid based on prescribed regimen.
- Developed education to therapy staff on standardized EFPTe administration and scoring<sup>6</sup>
- Improved multidisciplinary communication for discharge planning

#### FOR PRACTICE PURPOSES

Medication Information	Medication	Medication	Medication	Medication	Medication
Medication Name					
Medication Strength					
Medication Frequency					
Medication Duration					
Medication Instructions					
Medication Precautions					
Medication Storage					
Medication Administration					
Medication Disposal					

#### Fabrication of a Medication Management Kit: Labeling and Hygiene -

- Labeling
  - Attempted variety of labeling trials in collaboration with infection control
  - Tried adhesive, etching, exterior labeling
  - Arrived on laminated, interior labels
- Cleanable, reusable and identical to pharmacy labeling
- Hygiene
  - Integrated patient hand hygiene at the beginning and end of each session.
  - Developed facility approved sanitation protocol
  - Substituted dry beans for plastic beads in the case of Contact or Contact Plus Isolation patients.



### Implementation plan

- Screen for appropriateness of medication management assessment
  - Determine patients who manage medications at baseline and cognitive appropriateness post-op
  - Attempt to limit post-anesthesia effects on cognition
- Developed 2 medication kits to appropriately challenge patient based on commonly prescribed medication regimen following a particular surgery
  - 4 medications vs 7 medication + additional over-the counter medication distractors
- Developed standardized work for test administration and documentation
- Educated RN/APP/pharmacy
- Educated OT staff on process and standard work
  - Clinical justification presentation

#### Completion of task:

- Caregiver present to identify medication concerns and gain insight to level of assistance required when discharged
- Initiate use of medication grid to improve understanding and accuracy with medication sorting
- Recommendations are discussed with patient and caregiver
  - Recommendations written in after visit summary
- Communicate with pharmacy and RN about medication concerns to facilitate increased patient and caregiver education from multiple disciplines.
- Referral to home health OT/RN when appropriate

### Next steps

- Develop various kits for different diagnosis (neuro, CHF, diabetes)
- Create more formal screening tool
- Opportunity for more comprehensive assessment of barriers to medication adherence
- Identification of more formal treatment options
- OhioHealth system wide education
- Research for Correlation of EFPT-E Score and Readmission Risk



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- Chaturvedi, R. H., Gardner, P. J., Laguer, H. S., & Croghan, T. W. (2002). Patient adherence and medical treatment outcomes: A meta-analysis. *Medical Care*, 40(9), 794-811.
- Osabiyeh, L., & Buschka, T. (2005). Adherence to medication. *New England Journal of Medicine*, 353(6), 487-497.
- Schwartz, Jaclyn K., "Development and Testing of an Occupational Therapy Intervention to Promote Medication Adherence" (2015). Thesis and Dissertations. Paper 922.
- Rob, C. T., Jackson, B., Cascard, C.J., Manning, A. B., Tuck, E. J. (2016). Barriers to medication adherence in chronic heart failure patients during home visits. *Journal of Pharmacy, Practice, and Research* 46(1), 27-30.
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# So, Why Medication Management?

Medication non adherence in the elderly population is approaching 50%.

What are the reasons for this?

# Multifactorial Influences on Medication Adherence

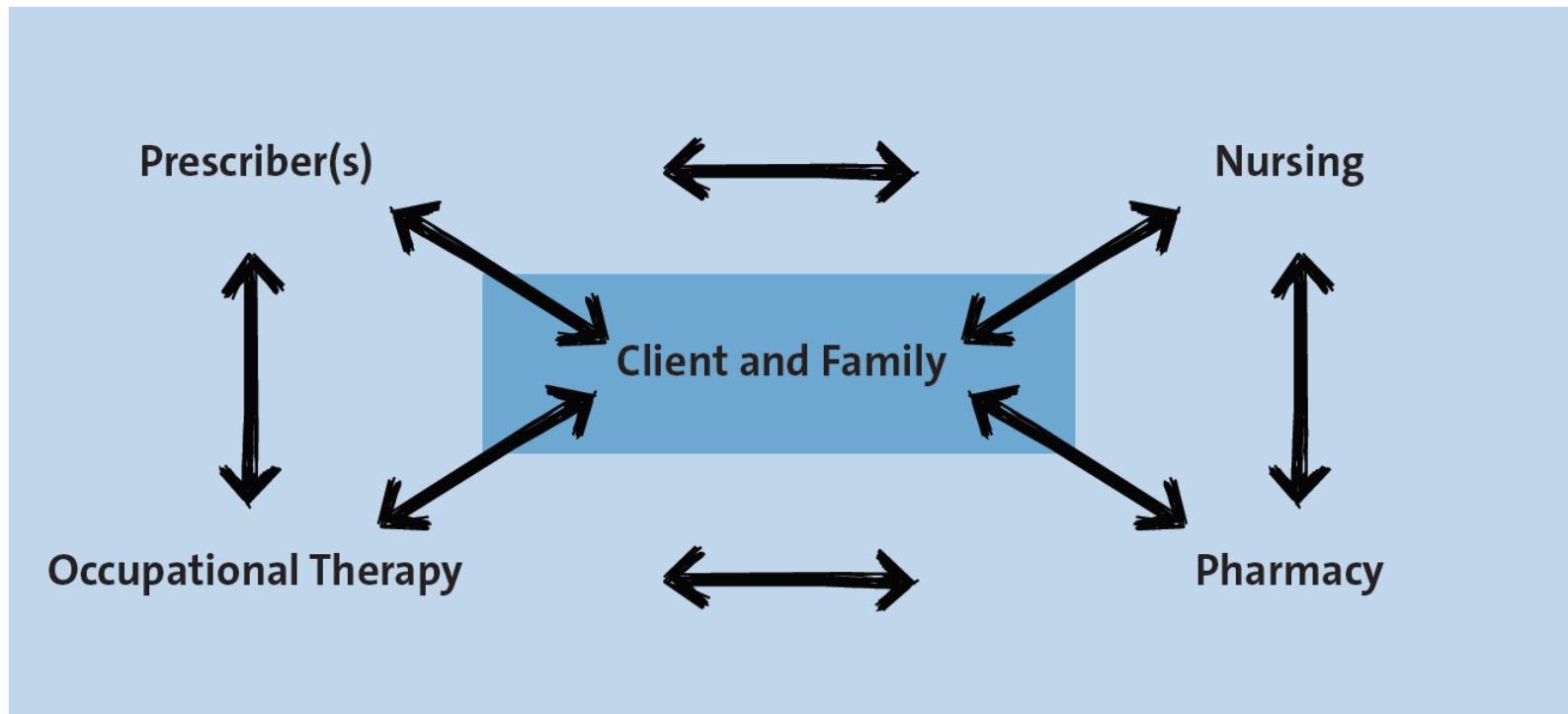
- Functional Capability
  - Physical
  - Cognitive
- Environmental
  - Proximity
  - Availability
- Socioeconomic
  - Financial
  - Community / Family Support
  - Norms
- Cultural
  - Intrinsic motivation
  - Skepticism



# The Myth of “Non-Compliance”

- Assumption of Patient Intent
- Gross over simplification of systems
- Minimization of role of Provider Team

# Multi-discipline



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# What's at stake?

- Researchers estimate in most instances, a patient must correctly take 80% of their medication for the intended outcome to occur.
- Failure to do so can lead to poorer health outcomes, debility, institutionalization, and even death.

# A Case Study

- 69 y.o. Caucasian female s/p fall with left posterior wall acetabular fracture, right proximal comminuted and angulated humeral fracture with dislocation, nasal fracture, and mild post concussive syndrome.
  - H/O:
    - CAD, OA, Osteoporosis, cervical / ovarian cancer, multiple cardiac stenting, prior poly pharmacy, bipolar, depression, remote ETOH abuse.
    - Multiple falls, multi rib fractures, deviated septum, Left humeral mid shaft fracture with ORIF, post concussive x 1...
  - Occupational Profile
    - Retired engineer, mother of adult child, active community member.
    - Divorced, Lives Alone, Has a Dog, Drives, single floor setup
    - Visits out of state elderly relatives with regularity.
    - PRIOR AMPAC 24 for both Basic Mobility and Daily Activity.
    - MOCA 30/30.

# What's going on here?

- Impressions?
  - Contributing / Compounding factors?
  - Which feeds which?
- Does this H & P lead us to a narrative?
  - Assignments of Blame?
  - Questions of Non Compliance?
  - Judgements related to Patient Capacity?

# The stories we tell...

- Can lead to a gross over simplification of circumstance.
- May steer a clinical team away from root cause.
- May lead us to “down shift” focus away from the presented facts.

# So, what should we be considering?

- The Role of IADLs in readmission risk
- Standardized assessment of executive function deficits.
- The role of ecological validity in the function.

# Tool Identification for the Acute Care Setting



# Cardiovascular Care and Bundle Payment Project at Riverside

- Bundle care payment- challenged OT to elevate their role in decreasing SNF utilization and readmission to improve outcomes, satisfaction and overall cost to the patient.
- Goal: Decrease readmission due to medication non-adherence in post-surgical cardiovascular population.

# The path to the Executive Function Performance Test Enhanced (EFPTe)

- Completed literature review on medication adherence and the role of occupational therapy
- Met with home health care to understand OT intervention opportunities in medication management
- Improved understanding of multidisciplinary approach to medication management in acute care

# The path to the EFPTe

- Utilized traditional EFPT medication management task with small cardiovascular patient sample
- 75% fail rate amongst patient test sample with a traditional 2 medication EFPT
- Pharmacy reports open heart discharge regimen **typically 6 new medications.**

# Research for Feasibility

- Dr. Carolyn Baum EFPT manual
- Dr. Jaclyn Schwartz dissertation and AOTA Position Paper
- Tests Reviewed: Hopkins Medication schedule, Pillbox test, EFPTe

# Final Selection

- Trialed Pillbox test vs. EFPTe
- RMH Team with previous awareness and use of EFPT in the “Safe Discharge to Home” kit.
- Selection of EFPTe due to greater volume of medications, standardization, and prior team awareness of scoring rubric.

# EFPTe: Scoring and Interpretation

# Executive Function Performance Test

- Developed by Carolyn Baum
- Originally created 1993
- Open Source PDF
- Includes assessments of:
  - Cooking
  - Bill payment
  - Telephone Use
  - Medication Management



# Why not do the whole thing?

- Recognition of need to establish the functional capacity of patient directly to a task, rather than assignment of arbitrary judgement.
- For obvious reasons of time, materials, and feasibility.
- Selected the task within the assessment most frequently attributed to readmission.



# What is the difference? (EFPT vs. EFPTe)

- e = Enhanced
- The test remains the same standardized measure.
- The scoring and administration remain unchanged.
- The volume of medication in the EFPTe is more consistent with the reality of acute care patient populations.
- Intended to ratchet up the complexity.

# Scoring

# Components of Executive Function

EXECUTIVE FUNCTION COMPONENT	DEFINITION	EXPECTED BEHAVIOR
<b>Initiation</b>	The start of motor activity that begins a task.	The individual moves to the materials table to collect items needed for the task.
<b>Execution</b>	The proper completion of each step, consisting of three requirements: organization, sequencing, and safety and judgment (see below).	The individual carries out the steps of the task.
<b>Organization</b>	The physical arrangement of the environment, tools, and materials to facilitate efficient and effective performance of steps.	The individual correctly retrieves and uses the items that are necessary for the task.
<b>Sequencing</b>	The coordination and proper ordering of the steps that comprise the task, requiring a proper allotment of attention to each step.	The individual carries out the steps in an appropriate order, attends to each step appropriately, and can switch attention from one step to the next.
<b>Judgment and Safety</b>	The employment of reason and decision-making capabilities to intentionally avoid physically, emotionally, or financially dangerous situations.	The individual exhibits an awareness of danger by actively avoiding or preventing the creation of a dangerous situation.
<b>Completion</b>	The inhibition of motor performance driven by the knowledge that the task is finished. The person does not perseverate and keep going	The individual indicates that he/she is finished or moves away from the area of the last step.

# Tiers of Cognitive Cuing for the EFPT

CUE TYPE	CUE DESCRIPTION
<i>No Cues Required</i>	The participant requires no help or reassurance, does not ask questions for clarification, goes directly to the task and does it. Self-cueing is acceptable. Ex. speaking to oneself.
<i>Indirect Verbal Guidance</i>	The person requires verbal prompting, such as an open-ended question or an affirmation that will help them move on. Indirect cues are also not task specific and should come in the form of a question: Do you need anything else?, Is there anything you need to do first?, Do you need another item?, What do you need to do next?, Is there another way to do that?, Is there anything you forgot?, Anything else you need to consider? <b>Avoid</b> direct phrases such as “read the instructions” or “turn on the stove.”
<i>Gestural Guidance</i>	The person requires gestural prompting. At this level, you are not physically involved with any portion of the task. Instead, you should make a gesticulation that mimics the action that is necessary to complete the subtask, or make a movement that guides the participant, e.g., you may move your hands in a stirring motion, point to where the participant may find the item, point to the appropriate level on the measuring cup, etc. You may not physically participate, such as handing the participant an item.
<i>Direct Verbal Assistance</i>	You are required to deliver a one-step command, so that you are cueing the participant to take the action. For example, say, “pick up the pen” or “pour the water into the pan.”
<i>Physical Assistance</i>	You are physically assisting the participant with the step, but you are not doing it for him/her. You may hold the cup while he/she pours, hold the check book while he/she writes, loosen the cap on the medicine container, etc., but the participant is still attending to and participating in the task.
<i>Do for the Subject</i>	You are required to do the step for the subject.

# Some tricks

- The way you cue...
  - Be careful. Gestures count.
  - How you phrase questions and prompts matter.
    - Open-ended Questions are lesser guidance
    - Direct instructions or prompts are greater guidance.
  - Recognize your communication patterns first.
- As long as safety is not impacted, be judicious with how much you help.

# Cues carry weight.

- 0 = no cues required
- 5 = completed for patient
- Avoid the classic therapist “over help”

# Of note...

- Assessment is intended to be purely cognitive.
  - A patient may verbalize or instruct evaluator in the completion of tasks due to a physical impairment.
  - The physical assistance cue (5) is related to the need to physically assistance as the result of cognitive impairment.
- Execution is the overall category for:
  - Organization
  - Sequencing
  - Safety and Judgment

# Hand washing is the prerequisite task

- This will help establish floor effect.
- Do not further test those patients who will be unable to cognitively participate in handwashing.
- If patient cannot cognitively complete basic handwashing, the test should not be administered.



# Standardization of EFPT

## ADMINISTRATION:

- Have the patient wash their hands before initiating the task.
- Orient the patient to the weekly pill box. State the following:
  - ***“This is the weekly pill box I would like you to use for this task.”***
- Provide the patient with the box of medications, including prescription, non-prescription, and distractor pill bottles. Do not allow the patient to utilize the medication grid for the initial assessment. State the following:
  - ***“We are going to give you a task to determine if you need any assistance managing your medications when you go home. I need you to pretend you have multiple prescriptions in this box. Find your prescriptions in the box; yours are the ones labeled “My Name.” Then fill out the pill box with a one week supply of your medications according to the directions.”***
- Provide verbal/gestural/physical cues according to EFPT Guidelines (located in kit).
  - Cue only after the patient has made a mistake that they are unable to correct.
  - Cue only as much as required to redirect the patient in the task.
- Individual, unique scores should be calculated for each aspect of Executive Function (initiation, execution, organization, etc.).
- At the conclusion of the initial assessment, consider the use of the medication grid in a second rehearsal of the task for improved performance.

# Documentation in CareConnect

**Flowsheets**

File | Add Rows | LDAAvatar | Cascade | Add Col | Insert Col | **Last Filed** | Reg Doc | Graph | Go to Date | Values By | Refresh | Legend | Chart Correction | Cosign | Link Lines

Peds Rehab Charges | **Cognitive Safety Asses...** | Outcome Measures | Daily Cares/Safety | OT Evaluation | Screening | Cognitive Safety Asses

Search (Alt+Comma) | Hide All Show All

- Discharge Safety Reco...
- Cooking
- Medication Managem...**
- Telephone Use
- Bill Pay
- Sum Total
- MOCA
- Cog Performance Test

Accordian Expanded **View All** | Reset Now

Obs from... 8/13/20 **1200** Last Filed

Category	Item	Score	Notes
Discharge Safety Recommendations	Discharge Safety Recommendations		
	Initiation		
	Organization		
Cooking	Initiation		
	Organization		
	Sequencing		
	Judgement and Safety		
Medication Management	Initiation		
	Organization		
	Sequencing		
	Judgement and Safety		
Telephone Use	Initiation		
	Organization		
	Sequencing		
	Judgement and Safety		

08/13/20 1200

**Initiation**

Select Single Option: (F5)

0=0 Independent  
 1=1 Verbal guidance  
 2=2 Gestural guidance  
 3=3 Verbal direct instruction  
 4=4 Physical assistance  
 5=5 Do For Patient

Comment (F6)

**Row Information**

- 0- Independent
- 1- Verbal guidance
- 2- Gestural guidance
- 3- Verbal direct instruction
- 4- Physical Assistance

# Interpretation

# The Crosswalk to Readmission Risk

- There is no benchmark score that reflects specific relative risk (i.e. readmission)
- Research is being conducted in post op orthopedic populations and new onset neurologic conditions.
- With the volume of tests completed at RMH for initial open heart:
  - Greater than 300 administrations
  - Those patients who scored greater than 4 of 25 were more likely to readmit
    - Many confounding variables.
    - Not statistically validated correlation.
- Would demonstrate a very low threshold for error.

# If it's not a direct correlation, what is standardized executive function performance testing good for?

- Improved inter rater reliability
- Improved ecological validity
  - Few greater predictors of success than actual task performance.
- Increased attention to high risk IADL issues
- Improved dialogue with clinical team members / family / and patient in depicting functional need at discharge.
- Activating resources with better awareness of the actual need of the patient.

# Example: Pharmacy Use of Medicine Grids in Discharge Med Reconciliation

## Home Medication Instructions

Patient Name  
 HAR:XXXXXXXXXX  
 Printed on:04/15/17 0715

Medication Information	Morning	Noon	Evening	Bedtime	Reason for Use
Lisinopril (ZESTRIL) 5 MG tablet Take 1 tablet (5 mg total) by mouth daily with lunch.		X			Decrease blood pressure
aspirin 81 mg EC tablet Take two (2) tablets (162 mg total) daily.	2 tablets				Anti-platelet
atorvastatin (LIPITOR) 40 MG tablet Take 1 tablet (40 mg total) by mouth nightly.				X	Decrease cholesterol, heart
Metoprolol (LOPRESSOR) 25 MG tablet Take 1 tablet (25 mg total) two times daily.	X			X	Decrease blood pressure, heart
furosemide (LASIX) 40 MG tablet Take 1 tablet (40 mg total) by mouth daily.	X				Decrease fluid
potassium chloride (K-DUR) 10 MEQ CR tablet Take 2 tablets (20 mEq total) by mouth three (3) times a day.	2 tablets	2 tablets		2 tablets	potassium

# Implementation in the Hospital Setting

# Materials



# Standard Work Document

## Medication Management Standard Work

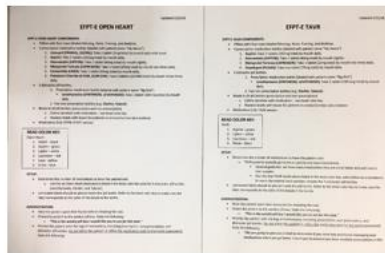
1. Therapist will first engage the patient in hand washing for infection control.



2. Therapist will present patient with an Open Heart or TAVR kit that includes a labeled pill box, 6 prescription medication bottles (Open Heart) or 4 prescription medication bottles (TAVR) patients, and 3 distractor medication bottles (2 non-prescription bottles and one prescription bottle).



3. Therapist will provide the patient with verbal task instructions as outlined in the appropriate kit. This is a general script that can be utilized by the therapist for standardization.



## Medication Management Standard Work

4. Patient will attempt sorting the pills according to the labeled instructions provided on the individual pill bottles. The medication grid should **not** be used on the initial assessment. Therapist will score based upon the EFPT guidelines (reference card included in kit).



5. Upon completion of initial assessment, an additional practice repetition can be utilized using an example medication grid to further grade the task to the patient's ability.



6. Therapist will sanitize the kit based upon infection control protocol outlined in kit instructions.



\*\*Note: Medication labeling and the example medication grid have been created through collaboration with pharmacy to most closely approximate discharge medications for an Open Heart population.

# Instructions for EFPTe

Updated 2/22/18

## EFPT-E OPEN HEART

### EFPT-E OPEN HEART COMPONENTS:

- Pillbox with four rows labeled *Morning, Noon, Evening, and Bedtime*.
- 6 prescription medication bottles (labeled with patient name "My Name")
  1. **Lisinopril (PRINIVIL, ZESTRIL)**: Take 1 tablet (5mg total) by mouth daily with lunch.
  2. **Aspirin**: Take 2 tablets (162mg total) by mouth daily.
  3. **Atorvastatin (LIPITOR)**: Take 1 tablet (40mg total) by mouth nightly.
  4. **Metoprolol Tartrate (LOPRESSOR)**: Take 1 tablet (25mg total) by mouth every 12 hours.
  5. **Furosemide (LASIX)**: Take 1 tablet (40mg total) by mouth daily.
  6. **Potassium Chloride (K-DUR, CLOR-CON)**: Take 2 tablets (20 MEQ total) by mouth three times daily.
- 3 distractor pill bottles:
  1. Prescription medication bottle (labeled with patient name "Big Bird")
    - **Levothyroxine (SYNTHROID, LEVOTHROID)**: Take 1 tablet (100 mcg total) by mouth daily.
  2. Two non-prescription bottles (e.g. **Claritin, Tylenol**)
- Beads in all pill bottles (prescription and non-prescription)
  - Colors correlate with medication – see bead color key
  - Replace beads with beans for patients in contact/contact plus isolation
- Medication Grid: OPEN HEART version

### BEAD COLOR KEY:

#### Open Heart:

1. Zestril – black
2. Aspirin – green
3. Lipitor – white
4. Lopressor – red
5. Lasix – yellow
6. K-Dur – blue

### SETUP:

- Determine the number of medications to have the patient sort.
  - Use the six Open Heart medications listed in the bead color key and the 3 distractor pill bottles (Levothyroxine, Claritin, and Tylenol).
- Laminated labels should be placed inside the pill bottle. Refer to the bead color key to make sure the label corresponds to the color of the beads in the bottle.

### ADMINISTRATION:

- Have the patient wash their hands before initiating the task.
- Orient the patient to the weekly pill box. State the following:
  - *"This is the weekly pill box I would like you to use for this task."*
- Provide the patient with the box of medications, including prescription, non-prescription, and distractor pill bottles. Do not allow the patient to utilize the medication grid for the initial assessment. State the following:

- *"We are going to give you a task to determine if you need any assistance managing your medications when you go home. I need you to pretend you have multiple prescriptions in this box. Find your prescriptions in the box; yours are the ones labeled "My Name." Then fill out the pill box with a one week supply of your medications according to the directions."*
- Provide verbal/gestural/physical cues according to EFPT Guidelines (located in kit).
  - Cue only after the patient has made a mistake that they are unable to correct.
  - Cue only as much as required to redirect the patient in the task.
- Individual, unique scores should be calculated for each aspect of Executive Function (initiation, execution, organization, etc.).
- At the conclusion of the initial assessment, consider the use of the medication grid in a second rehearsal of the task for improved performance.

### MEDICATION GRIDS:

- Pharmacy generates these and distributes them to the patients during discharge counseling once the AVS is approved.
- A practice version is available in each kit, Open Heart and TAVR.
- Educate and train the patient on the option of using a visual cue for increased accuracy in medication sorting.
  - The grid may not be used on the initial assessment, however, it may be administered during a second trial for improved performance of the task.
  - Explain to the patient that at discharge they will receive a medication grid similar to the one in the kit.
  - The grid indicates when patients should be taking their medications according to the pharmacist and physician's recommendations. This is especially helpful when the medication label does not provide guidance on the time of day to take the medication. For example:
    - Lopressor: the dose on the bottle is "twice per day." Typically, patients are educated by pharmacy to take Lopressor as close to every 12 hours as possible.
    - Lasix: per pharmacy, patients are typically instructed to take this in the AM.

### DOCUMENTATION:

- Navigate to the **Cognitive Safety Assessment** flowsheet and file data under **Medication Management**.
  - Rate cueing required according to EFPT guidelines (see grid in kit as reference).
  - Provide narrative and document skilled intervention under **Medication Recommendation**.
- Note: insert the smart phrase **.rmhoheartnote** into your note; this will pull the EFPT-E total score and Medication Recommendation section from the Cognitive Safety Assessment flowsheet.
- AVS: insert the smart phrase **.rmhoheartavs** and use the drop down menu to select recommendations.

### CLEANUP:

- Beads and laminated labels need to be cleaned at a minimum of once a week.
- Pill bottles and boxes need to be cleaned after each use.
- Contact/contact plus isolation: use beans in the bottles and discard in the patient's room after each use.
  - Clean the kit immediately after each use with contact/contact plus patients using appropriate type of disinfecting wipe.

# EFPT Scoring Guide

EXECUTIVE FUNCTION COMPONENT	DEFINITION	EXPECTED BEHAVIOR
<b>Initiation</b>	The start of motor activity that begins a task.	The individual moves to the materials table to collect items needed for the task.
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<b>Completion</b>	The inhibition of motor performance driven by the knowledge that the task is finished. The person does not perseverate and keep going	The individual indicates that he/she is finished or moves away from the area of the last step.

CUE TYPE	CUE DESCRIPTION
<b>No Cues Required</b>	The participant requires no help or reassurance, does not ask questions for clarification, goes directly to the task and does it. Self-cueing is acceptable. Ex. speaking to oneself.
<b>Indirect Verbal Guidance</b>	The person requires verbal prompting, such as an open-ended question or an affirmation that will help them move on. Indirect cues are also not task specific and should come in the form of a question: Do you need anything else?, Is there anything you need to do first?, Do you need another item?, What do you need to do next?, Is there another way to do that?, Is there anything you forgot?, Anything else you need to consider? <b>Avoid</b> direct phrases such as "read the instructions" or "turn on the stove."
<b>Gestural Guidance</b>	The person requires gestural prompting. At this level, you are not physically involved with any portion of the task. Instead, you should make a gesticulation that mimics the action that is necessary to complete the subtask, or make a movement that guides the participant, e.g., you may move your hands in a stirring motion, point to where the participant may find the item, point to the appropriate level on the measuring cup, etc. You may not physically participate, such as handing the participant an item.
<b>Direct Verbal Assistance</b>	You are required to deliver a one-step command, so that you are cueing the participant to take the action. For example, say, "pick up the pen" or "pour the water into the pan."
<b>Physical Assistance</b>	You are physically assisting the participant with the step, but you are not doing it for him/her. You may hold the cup while he/she pours, hold the check book while he/she writes, loosen the cap on the medicine container, etc., but the participant is still attending to and participating in the task.
<b>Do for the Subject</b>	You are required to do the step for the subject.

# Pill Bottles



# Distractor Bottles



# Beads in a variety of colors

## BEAD COLOR KEY:

### Open Heart:

1. Zestril – black
2. Aspirin – green
3. Lipitor – white
4. Lopressor – red
5. Lasix - yellow
6. K-Dur - blue

# Labeling (Examples)



**Riverside Methodist Hospital**  
3535 Olentangy River Rd, Columbus OH 43214-3908  
Phone number: 614-566-5000

**MY NAME**

**Atorvastatin (LIPITOR) 40 MG tablet**  
Take 1 tablet (40 mg total) by mouth nightly  
Nancy Sue Sample, CNS  
Dispensed on: 4/26/17 1143

**Riverside Methodist Hospital**  
3535 Olentangy River Rd, Columbus OH 43214-3908  
Phone number: 614-566-5000

**MY NAME**

**Metoprolol Tartrate (LOPRESSOR) 25 MG tablet**  
Take 1 tablet (25 mg total) by mouth every 12 (twelve) hours  
Nancy Sue Sample, CNS  
Dispensed on: 4/26/17 1146

# Medication Sorter





# Medication Grid

Open Heart



FOR PRACTICE  
PURPOSES

Home Medication Instructions

Patient Name  
HAR:XXXXXXXXXX  
Printed on:04/15/17 0715

Medication Information	Morning	Noon	Evening	Bedtime	Reason for Use
Lisinopril (ZESTRIL) 5 MG tablet Take 1 tablet (5 mg total) by mouth daily with lunch.		X			Decrease blood pressure
aspirin 81 mg EC tablet Take two (2) tablets (162 mg total) daily.	2 tablets				Anti-platelet
atorvastatin (LIPITOR) 40 MG tablet Take 1 tablet (40 mg total) by mouth nightly.				X	Decrease cholesterol, heart
Metoprolol (LOPRESSOR) 25 MG tablet Take 1 tablet (25 mg total) two times daily.	X			X	Decrease blood pressure, heart
furosemide (LASIX) 40 MG tablet Take 1 tablet (40 mg total) by mouth daily.	X				Decrease fluid
potassium chloride (K-DUR) 10 MEQ CR tablet Take 2 tablets (20 mEq total) by mouth three (3) times a day.	2 tablets	2 tablets		2 tablets	potassium

# CLEANING

- Partnered with Infection Prevention.
- All items are plastic or laminated.
- Use appropriate spray or wipes
  - Follow Med Management Standard Work.
  - Observe necessary wet time for sanitizing.
- Alternate options for Contact Plus
  - Beans versus Beads

# A Return to the Case Study

# A Case Study

- 69 y.o. Caucasian female s/p fall with left posterior wall acetabular fracture, right proximal comminuted and angulated humeral fracture with dislocation, nasal fracture, and mild post concussive syndrome.
  - H/O:
    - CAD, OA, Osteoporosis, cervical / ovarian cancer, multiple cardiac stenting, prior poly pharmacy, bipolar, depression, remote ETOH abuse.
    - Multiple falls, multi rib fractures, deviated septum, Left humeral mid shaft fracture with ORIF, post concussive x 1...
  - Occupational Profile
    - Retired engineer, mother of adult child, active community member.
    - Divorced, Lives Alone, Has a Dog, Drives, single floor setup
    - Visits out of state elderly relatives with regularity.
    - PRIOR AMPAC 24 for both Basic Mobility and Daily Activity.
    - MOCA 30/30.

# What did the EFPTe teach us with this patient?

- Total score = 2 of 25
- No assistance with the score of 0 for Initiation, Sequencing, and Completion.
- Required indirect verbal guidance (Score of 1) for both Organization and Judgement /Safety.

# The issues; not necessarily the score.

- Reminder: there is no specific score linked to readmission risk
- This patient has relatively few errors (2 of 25).
- How did the assessment guide the intervention?
  - **Organization error:** Resulted from the use of a Morning / Evening pill sorter with a mid day medication.
    - Patient had been using the morning / evening pill sorter for 20 years.
  - **Safety / Judgement error:** Chose to set the mid day bottle aside and “remember” to take it daily. This was the medication error which precipitated the hospital admission for this case study.
- Intervention: 4 time/day pill sorter implemented.
  - All medications housed in one device.
  - Outcome: No subsequent medication errors.

# Learning Objectives

1. Recognize the relationship between IADL deficits and readmission risk.
2. Identify tools intended for the measurement of executive function / IADL performance.
3. Demonstrate the basic principles of administration of the EFPT.
4. Identify the scoring rubric for the EFPT.
5. Express the clinical relevance of test scoring to interdisciplinary stake holders.

# In Appreciation:

- Primary Contributors
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