



ASSESSING MEDICATION MANAGEMENT SKILLS; A COLLABORATIVE EFFORT

CHRIS NOREN, OTR/L PAUL ARNOLD, OTR/L, SHANTEL MULLIN, PHARM.D

HISTORICAL BACKGROUND



- Clinical teams built around diagnostic areas
- Home departments located off units
- Various rounding models for team communication
- Different EMR views for each discipline
- Limited interdisciplinary treatment planning

AFHS OPPORTUNITY M=MEDICATIONS

Create a new collaborative effort with Pharmacy and Occupational Therapy

- Occupational Therapy assesses functional cognition and self care skills (AMPAC and Med Management Screen)
- Pharmacy involved in medication planning and reconciliation
- Opportunity to share information to improve planning and success with medication management

EXISTING DATA COLLECTION

Boston University AM-PAC™ '6 Clicks'
Applied Cognitive Inpatient Short Form

Please check the box that reflects your best answer to each question.

How much difficulty does the patient currently have... (If the patient hasn't done an activity recently, how much difficulty do you think he/she would have if he/she tried?)	Unable	A Lot	A Little	None
1. Following/understanding a 10 to 15 minute speech or presentation (e.g., lesson at a place of worship, guest lecturer at a senior center)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
2. Understanding familiar people during ordinary conversations?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
3. Remembering to take medications at the appropriate time?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
4. Remembering where things were placed or put away (e.g., keys)?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5. Remembering a list of 4 or 5 errands without writing it down?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
6. Taking care of complicated tasks like managing a checking account or getting appliances fixed?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

Raw Score: _____ CMS 0-100% Score: _____

Standardized (t-scale) score: _____ CMS Modifier: _____

- Integrated into EPIC
- Score range from 6 to 24
- 6= limited ability for applied cognitive skills
- 24= independent with multi-step activities
- Scored by occupational therapist for each patient visit for cognition and self care
- 2018 collected 43,131 cog scores on 10,775 patients

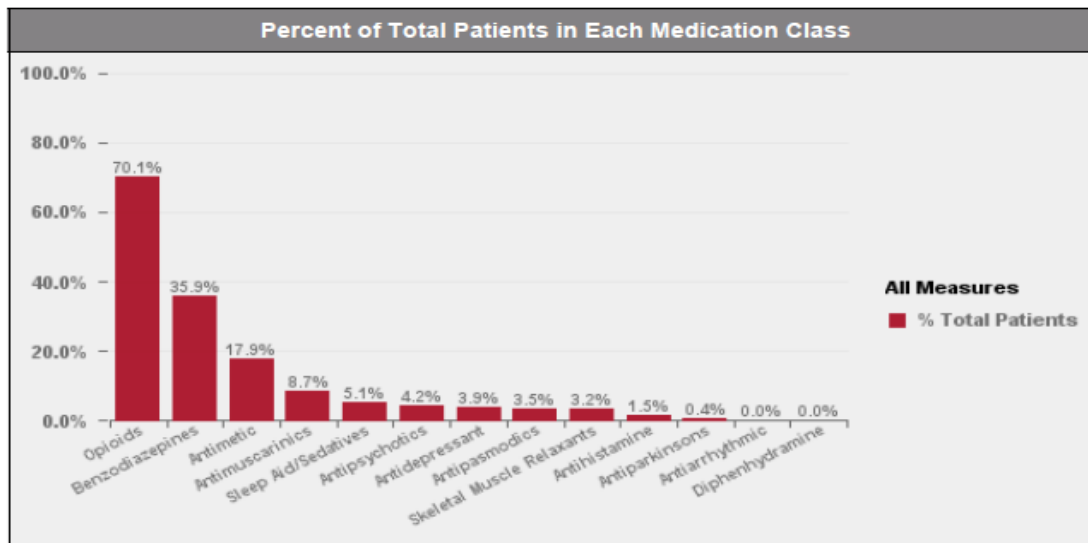
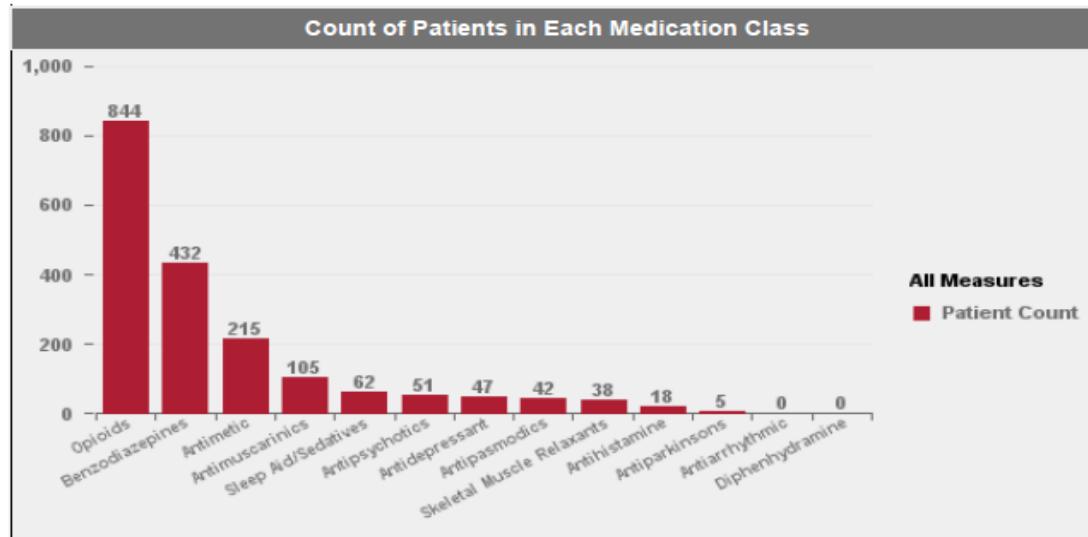
AM-PAC Short Form Manual (v. 3.0) © 2016, Trustees of Boston University, under license to CREcare, LLC. All rights reserved

AFHS OPPORTUNITY M=MEDICATIONS



Age-Friendly Study Dashboard v1.0

Date Range:	02/01/18 - 01/31/19
Patient Count:	1,204
Units:	AIMA;WP5



PharmGroup	Patient Count	% of Patients	Avg First Score
Opioids	844	70.1%	18.75
Benzodiazepines	432	35.9%	18.88
Antiemetic	215	17.9%	18.77
Antimuscarinics	105	8.7%	18.61
Sleep Aid/Sedatives	62	5.1%	17.5
Antipsychotics	51	4.2%	14.02
Antidepressant	47	3.9%	17.03
Antipasmotics	42	3.5%	17.93
Skeletal Muscle Relaxants	38	3.2%	20.9
Antihistamine	18	1.5%	21
Antiparkinsons	5	0.4%	14.25
Diphenhydramine	0	0.0%	N/A
Antiarrhythmic	0	0.0%	N/A

Anticholinergic Classification	Patient Count	% of Patients	Avg First Score
Anticholinergics	423	35.1%	17.87
Non-Anticholinergics	907	75.3%	18.6

AFHS OPPORTUNITY M=MEDICATIONS

Question: Could we identify a way to screen medication management skills?

Answer: Yes, it is part of OT practice

OCCUPATIONAL THERAPY IN ACUTE CARE

- To optimize the patient's function, independence and safety during daily activities
- This is done by considering the following:
 - Physical impairments
 - Impaired cognition as it relates to applied activities
 - The patient social and physical environment

INTRODUCTION TO THE MEDI-COG

- Mini Cog
 - Three Word Registration
 - Clock Drawing
 - Three Word Recall
- Medication Transfer screening
- A score of 8/10 is passing

TRANSFERRING MEDICATION TO A PILLBOX

On the table below write the number of pills as instructed into the correct compartments:

Example: TAKE ONE TABLET EVERY DAY AT BEDTIME

1. TAKE ONE TABLET EVERY DAY IN THE MORNING

2. TAKE ONE TABLET 3 TIMES DAILY WITH MEALS

3. TAKE TWO TABLETS M-W-F IN THE EVENING

4. TAKE ONE-HALF TABLET ON SATURDAY AT BEDTIME

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Morn							
Noon							
Eve							
Bed	1	1	1	1			

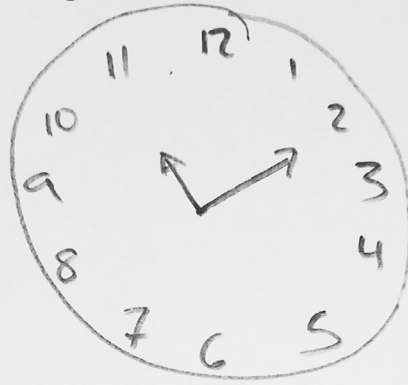
5. How many pills total are in the pill box for the entire day of Saturday?

MEDI COG CONTINUED

- The Mini-Cog is a validated cognitive tool
- Medi-Cog has not been validated
- Briefly screens for cognitive impairment, patient literacy, and the patients ability to distribute medications into a pillbox

WHAT PATIENT RESPONSES MAY LOOK LIKE

PASSING



$\frac{3}{3}$ TWR

$\frac{2}{2}$ CD

TRANSFERRING MEDICATION TO A PILLBOX

On the table below write the number of pills as instructed into the correct compartments:

Example: TAKE ONE TABLET EVERY DAY AT BEDTIME

1. TAKE ONE TABLET EVERY DAY IN THE MORNING |
2. TAKE ONE TABLET 3 TIMES DAILY WITH MEALS |
3. TAKE TWO TABLETS M-W-F IN THE EVENING |
4. TAKE ONE-HALF TABLET ON SATURDAY AT BEDTIME |

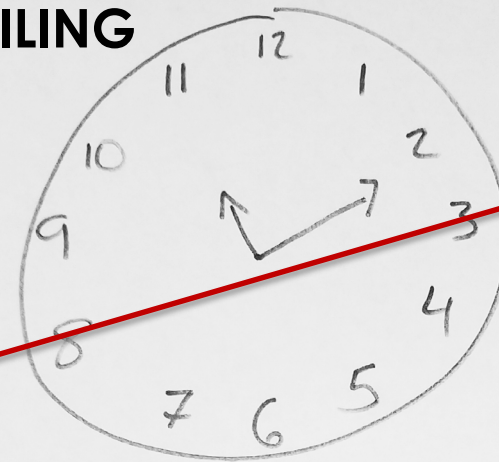
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Morn	1	1	1	1	1	1	1
Noon	1	1	1	1	1	1	1
Eve	1	2	1	2	1	2	1
Bed	1	1	1	1	1	1	1/2

5. How many pills total are in the pill box for the entire day of Saturday? $5\frac{1}{2}$ |

MINI-COG = $\frac{5}{3}$
 MTS = 3
 MEDI-COG = $\frac{10}{10}$

Mini-Cog[®] developed by Soo Borson; MTS developed by Katherine Anderson; Medi-Cog[™] Anderson-Borson

FAILING



$\frac{2}{3}$ TWR

$\frac{2}{2}$ CD

INCORRECT RESPONSES

TRANSFERRING MEDICATION TO A PILLBOX

On the table below write the number of pills as instructed into the correct compartments:

Example: TAKE ONE TABLET EVERY DAY AT BEDTIME

1. TAKE ONE TABLET EVERY DAY IN THE MORNING |
2. TAKE ONE TABLET 3 TIMES DAILY WITH MEALS \emptyset
3. TAKE TWO TABLETS M-W-F IN THE EVENING \emptyset
4. TAKE ONE-HALF TABLET ON SATURDAY AT BEDTIME |

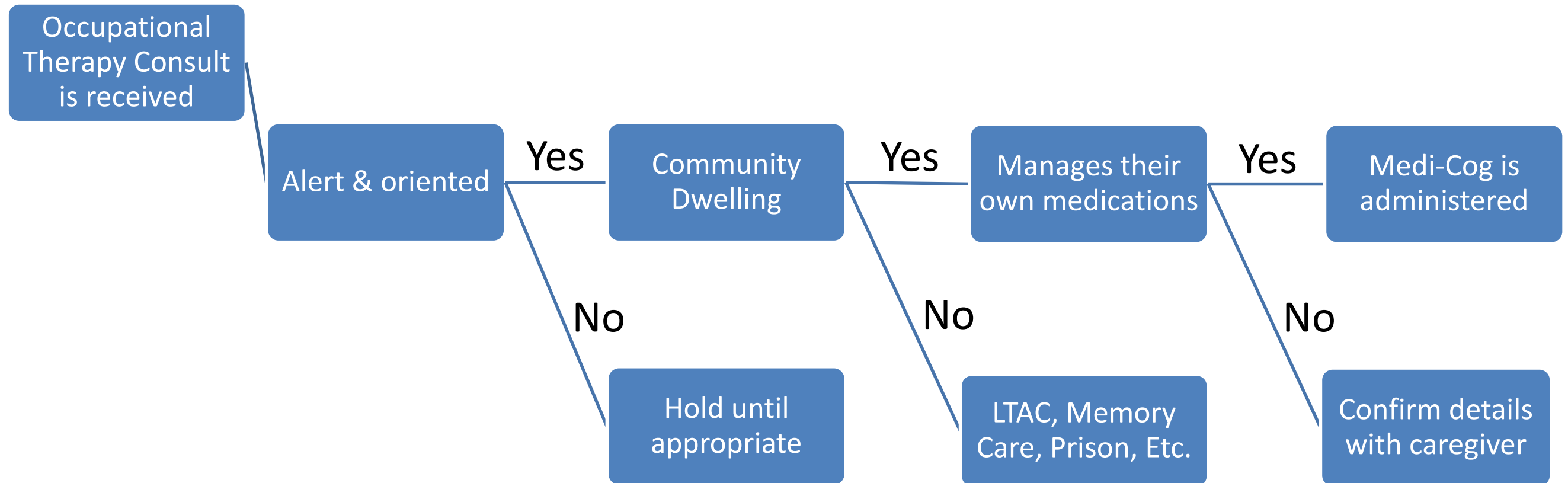
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Morn	1	3	3	3	3	3	3
Noon	3	3	3	3	3	3	3
Eve	3	3	3	3	3	3	3
Bed	1	1	1	1	1	1	1/2

5. How many pills total are in the pill box for the entire day of Saturday? $7\frac{1}{2}$ \emptyset

MINI-COG = $\frac{4}{5}$
 MTS = $\frac{2}{5}$
 MEDI-COG = $\frac{6}{10}$

Mini-Cog[®] developed by Soo Borson; MTS developed by Katherine Anderson; Medi-Cog[™] Anderson-Borson

WHICH PATIENTS ARE GIVEN THE MEDI-COG



IMPLEMENTATION DURING EVALUATION

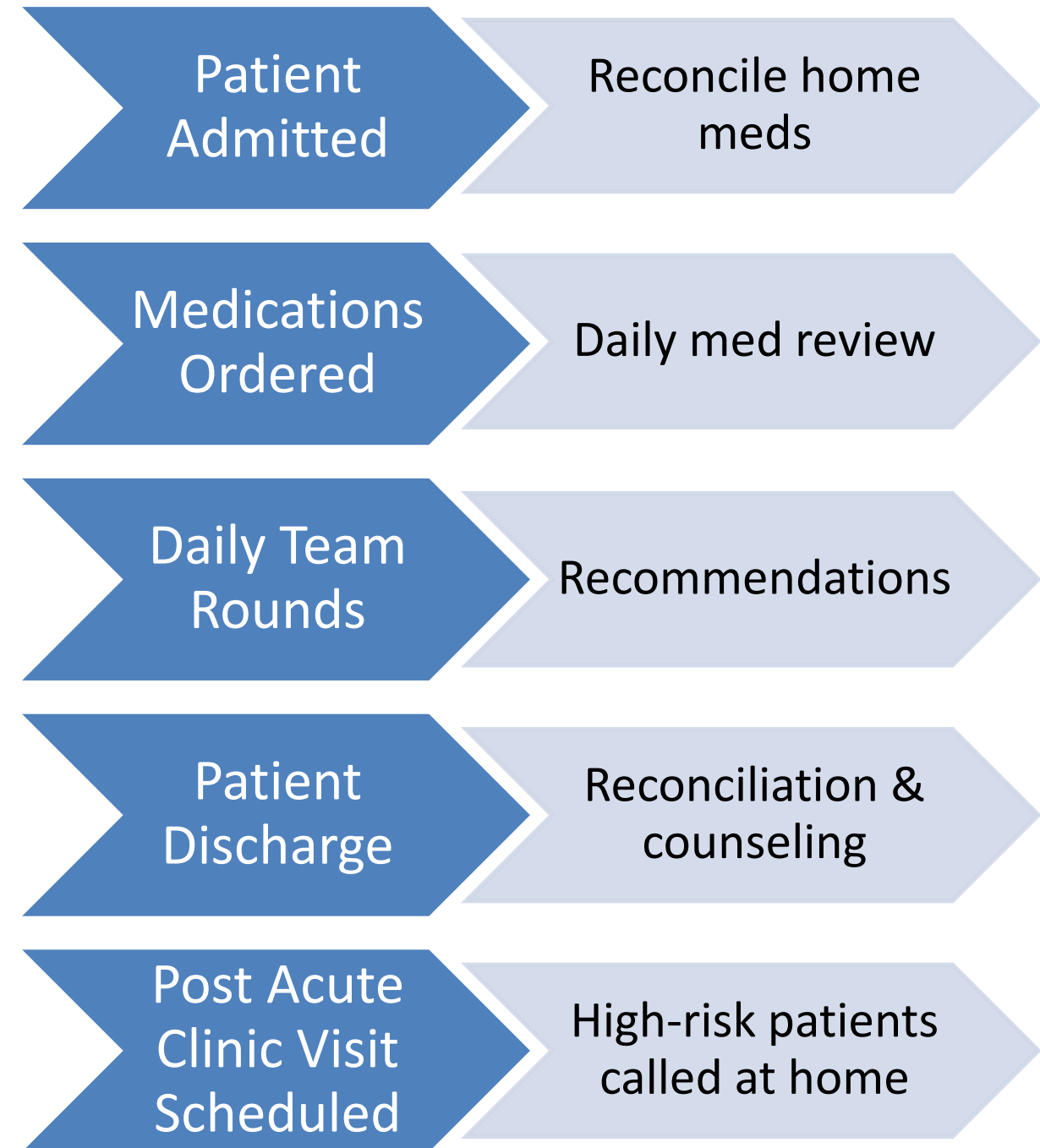
Precautions (OT)	Functional Status (OT)	AMPAC Activity (IP)	Med Management Score	AMPAC Mobility (IP)	AMPAC Cognitive (IP)
FALL, confused, NWB RUE, WBAT RLE (per daughter), HR	3/25 hold until after cardioversion 3/25, follow up in PM or tomorrow d/t elevated HR 3/24 Asked to do in bed activity d/t inc HR - min-modA g/h - dressing not tested - patient with POOR cog (baseline)	10	N/A	14	8
fall, LUE painful +++MED+++	ModA in room mobility - relies heavily on walker - may be having pacer replaced (?) - maxA dressing - modA adl's at sink	15	FAIL - vision	17	20
med-low falls, sternal	3/26 Min A for bed mob, CGA/Min A for STS, Min A for room mob, Min A for toileting, SUA for LB dressing, 3/22 - Passed medicog but had 2 mistakes on the Medication transfer; Toileting with Mod A, good recall of sternal and was 5/10 RPE after doing ADLs and a brief walk; educated on using RPE to rate exertion; 3/21 BITS 92% accuracy mainly d/t UE fatigue and need A for endurance; weight bar for biceps/ t-band for triceps; A&Ox4 TREATMENT: stnding ADLs, high level cog treatments, energy conservation, dressing, balance, coordination	22	PASS	18	22
HIGH Foley, CT, Sternal, potential LUE clot	3/27 Mod-Min A for STS, standing ADLs w/ Min and cues for alignment, 3/10 on medicog, poor attention, poor problem solving, edu provided on environmental modification and auditory rehearsal TREATMENT	15	Fail-cog	12	12
HIGH Sternal, CT, Cog	3/26 Max A for scooting EOB, Min A for STS, Min A/CGA for side steps to BSC. Attention significantly limited today d/t pain 3/25 3/10 on medicog, pt's wife fills pillbox container, pt	11	N/A	15	9

IF THE PATIENT DOES NOT PASS, WHAT DO WE DO NEXT?

- The results of Medi-Cog are placed in a shared work column with pharmacy
- The results inform OT discharge recommendations
- Follow up is performed using a pillbox test
- Future OT treatment sessions are designed to improve the patient's ability to manage medication

PHARMACY SERVICES

- Acute care stay
- Transitions of care
 - Discharge
 - Med calls



USING MEDI-COG RESULTS

- Inpatient PharmD
 - Identify home med issues early
 - Discuss options with team
- Discharge PharmD
 - Consider self-medication aids
 - Educate designated caregiver

Med Management Score
FAIL
FAIL - cog
Fail - Unable to read medication directions
Hold d/t pain
N/A - Spouse Helps
NA-facility
Pass

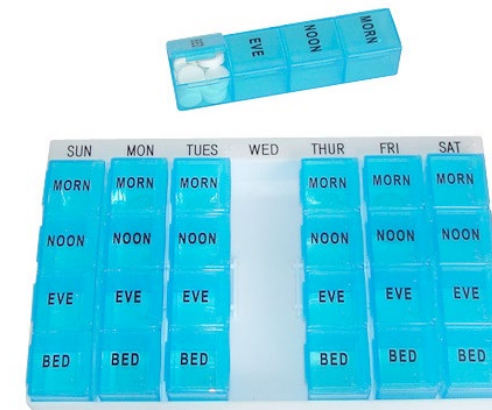
LOW MEDI-COG SCORE

Cognitive

- Simplify regimen
- Identify a caregiver
- Home health/case management
- Pill organizers
- Grid with meds & times
- Reminders

Physical/Visual

- Pill organizers
- Select med with easiest self-administration
- Large print instructions



FUTURE OPPORTUNITIES AT U OF U HEALTH

- Streamline process for *Medi-Cog* response
- Transitions of care calls
 - Use *Medi-Cog* when calling patients
 - Assess need for med interventions
- Prescription synchronization
- Blister pack weekly med fills

MEDICATION PROJECT: POTENTIAL OUTCOMES

- Accurate med use at home
- Streamlined med lists
- Reduce med-related readmissions
- Improve satisfaction with care coordination

LESSONS LEARNED FOR M=MEDICATION

- Collaborate: OT, Pharmacy, Medicine, Informatics, Project Administrator
- Start small and meet often
- Adjust as you go
- Keep the focus on patient needs

THANK YOU!

