

# Transitions of Care

Maralyssa Bann

Stephanie Fosback

Thuan Ong

# Case Presentation:

- 55 yo man with CKD, HFrEF, Afib on AC, severe COPD, chronic pain due to right hip OA/osteonecrosis, restless leg syndrome and suspected neurocognitive impairment
- In 2019 he had an admission for hard to control afib with rapid ventricular rate and was started on amiodarone & carvedilol.
- In Jan 2020 thrice weekly hemodialysis was initiated for volume overload

## Case contd.

- In June 2020, he was placed on oxygen & started on bipap for hypoxic hypercapnic respiratory failure thought to be progression of HF and COPD.
- CT chest at the time showed interstitial changes attributed to volume overload.
- Amiodarone not stopped by pulmonology or primary MD. No follow up with cardiology planned to address ongoing amiodarone use.

Who Does  
What When  
You Have  
Multiple  
consultants?

Communication between PCP and specialists improves patient outcomes and satisfaction. Unfortunately, this occurs inconsistently.

PCPs and specialists report inconsistent receipt of communications from other physicians.

Those that reported inconsistent receipt also reported that it impacts their ability to provide High-quality care.

Primary care physicians and specialists both report that collaboration is worth the extra time it takes to provide improved care for patients.

## Practical Application

Consider longer “post consult” visits.

Have a nurse manager make sure consult notes are available prior to visits.

Consider writing a summary of why you are sending patient to the specialist & specific question. “Quality” reports helped with communication, & specialists stated in this study they received less of this.

Suggestion from a General Internist (not evidence based):  
Call the specialist  
Make clear who is doing what and what the roles are.

## Case contd.

- Dec 2020, he was admitted to **LTAC**.
- At this point patient has chronic volume overload from ESRD & HF. He was on 2-4 L NC oxygen and had chronic hypercapnia on prescribed bipap.

# Overview of ALF vs. AFH vs. SNF

	Senior Apartment Housing	Assisted Living Facility	Adult Family Home (AFH)	Skilled Nursing Facility (SNF)
<b>ADL assistance</b>	None	Yes	Yes	Yes
<b>IADL assistance</b>	None	Yes	Yes	Yes
<b>Onsite medical care</b>	None	Variable, limited, intermittent	Usually none; nurse delegated care	RN/LPN MD/NP/PA
<b>Use of home health</b>	Yes	Yes	Yes	No
<b>Type of environment</b>	Apartment	Apartment	Shared community home	Single to Quad occupancy rooms
<b>Number of residents</b>	Variable – 100s	Variable 25-100s	2-6	Variable, 50-100
<b>Payor</b>	Private	Mostly private	Private/Medicaid	Medicare/Medicaid

## Case contd.

- Feb 2, 2021 Admitted for AMS that was thought to be secondary to oxycodone given for hip pain. There was concern regarding stopping oxycodone given ongoing hip pain and restless legs causing insomnia and worsening behavioral issues. He was discharged with recommendation that opioids be used sparingly but they were not stopped. Discharged Feb 8<sup>th</sup>.

## Case contd.

- Readmitted Feb 14, 2021 for AMS secondary to acute on chronic hypercapnia from opiate overdose. Required MICU admission for Bipap and narcan gtt. Oxycodone switched from scheduled to q 6 prn but not stopped. No discussion with SNF provider regarding pain management. Discharged Feb 18<sup>th</sup>

# Readmission is an Opportunity to Examine Care Delivery

- Mixed evidence relating readmission rates to overall quality of care.<sup>1</sup>
- ~25% patients discharged to skilled nursing facility (SNF) are readmitted within 30 days.<sup>2,3</sup>
- Common themes<sup>4</sup>
  - Condition and acuity not well-suited to SNF capabilities
  - Misaligned expectations among providers and families
  - Complicated interfacility relationships

<sup>1</sup>Benbassat J and Taragin M. Hospital readmissions as a measure of quality of health care. Arch Intern Med. 2000;160(8):1074-1081.

<sup>2</sup>Dharmarajan K et al. Diagnoses and timing of 30-day readmissions after hospitalization for heart failure, acute myocardial infarction, or pneumonia. JAMA. 2013;309:355-363.

<sup>3</sup>Burke RE et al. Hospital readmission from post-acute care facilities: risk factors, timing, and outcomes. J Am Med Dir Assoc. 2016;17:249-255.

<sup>4</sup>Minges KE, et al. Hospital readmission from skilled nursing facilities: perspectives of hospital and SNF providers. J Am Med Dir Assoc. 2019;20(8):1050-1051.

# Common Drivers and Consequences of Hospital-Based SNF Discharge Decision-Making

Driver	Consequence
Pressure to Expedite Evaluation and Discharge Decision-Making	Use of SNF as “Safety Net”
Lack of Knowledge of SNF Care Delivery, Quality, or Patient Outcomes <sup>2</sup>	Lack of Standardized Process or Clear Decision-Making for Selecting Patients

<sup>1</sup>Burke RE et al. How hospital clinicians select patients for skilled nursing facilities. J Am Geriatr Soc. 2017;65(11):2466-2472.

<sup>2</sup>Ward KT et al. Do internal medicine residents know enough about skilled nursing facilities to orchestrate good care transition? J Am Med Dir Assoc. 2014;15:841-843.

## Case contd.

- Readmitted March 3<sup>rd</sup> 2021 admitted for AMS, acute on chronic hypercapnic respiratory failure. Required MICU admission for Bipap & narcan gtt. At this admission amiodarone was 'discontinued' given concern for possible drug induced interstitial lung disease contributing to frequent respiratory decompensation. Opioids were also discontinued but with no alternative pain or behavior management plan. He was discharged back to SNF with recommendation to continue bipap when sleeping.

# Resources for Patients with Complex Needs and High Risk of Hospitalization

- An independent, graded association between GFR and risk of death, cardiovascular events, and hospitalization<sup>1</sup>
- Hospitalized patients with ESRD had similar palliative care needs, improvement in symptoms, and clarification of goals as patients with other serious illnesses<sup>2</sup>
- Patients with non-cancer illness receiving palliative care referral had fewer ED visits, hospitalization, and admissions to ICU as compared to those without palliative care<sup>3</sup>

<sup>1</sup>Go AS et al. Chronic kidney disease and the risks of death, cardiovascular events, and hospitalization. NEJM. 2004;351(13):1296-305.

<sup>2</sup>Grubbs V et al. Characteristics and outcomes of in-hospital palliative care consultation among patients with renal disease versus other serious illnesses. Clin J Am Soc Nephrol. 2017;12(7):1085-1089.

<sup>3</sup>Quinn KL et al. Association between palliative care and healthcare outcomes among adults with terminal non-cancer illness: population based matched cohort study. BMJ. 2020;370:m2257.

## Case contd.

- Readmitted March 13<sup>th</sup> 2021 for AMS, acute on chronic hypercapnic respiratory failure. Required MICU admission for Bipap.
- At this admission, amiodarone continued to be listed on SNF med list/MAR and after some chart digging it was discovered that it in fact been discontinued at last hospitalization. However, it was unclear if it was still being administered at SNF.

Facility		Pharmacy	PharMerica	Physician																															
Allergies	Cephalexin																																		
Advance Directive																																			
Sched for Oct 2021	Hours	Fri 1	Sat 2	Sun 3	Mon 4	Tue 5	Wed 6	Thu 7	Fri 8	Sat 9	Sun 10	Mon 11	Tue 12	Wed 13	Thu 14	Fri 15	Sat 16	Sun 17	Mon 18	Tue 19	Wed 20	Thu 21	Fri 22	Sat 23	Sun 24	Mon 25	Tue 26	Wed 27	Thu 28	Fri 29	Sat 30	Sun 31			
Metoprolol Succinate ER Tablet Extended Release 24 Hour 25 MG Give 1 tablet by mouth one time a day for HTN Hold for SBP <100 or pulse <80 -Order Date- 10/11/2021 1431	BP	X	X	X	X	X	X	X	X	X	X	X	121/80	118/80	110/59	98/64	99/63	125/65	122/68	118/79	124/72														
	Pulse	X	X	X	X	X	X	X	X	X	X	X	80	80	64	69	62	74	74	64	68														
	0800	X	X	X	X	X	X	X	X	X	X	X	tkgf	tkgf	tkgf	12trvq	12trvq	tkgf	tkgf	tkgf	tkgf														
MiraLax Packet 17 GM (Polyethylene Glycol 3350) Give 1 packet by mouth one time a day for Constipation -Order Date- 08/24/2021 1347 -D/C Date- 10/01/2021 0840	0800		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Monthly wt and VS every evening shift starting on the 17th and ending on the 17th every month -Order Date- 08/24/2021 1347 -D/C Date- 10/01/2021 0845	Wt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	BP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Temp	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Pulse	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Reap	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	PM 14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Usually, alphabetical order

<b>Chart Codes / Follow Up Codes</b> ----- Follow Up Codes ----- A=Administered I=Ineffective E=Effective U=Unknown H=On Hold By Physician ----- Chart Codes ----- Refer to the last page of this report for a complete list of chart codes) OBA=Group Observed - All	OBI=Observed Individual OBP=Group Observed - Partial 1=Drug Refused 2=Hold/See Nurse Notes 3=Nauseated / Vomiting 4=Pulse below 60/min 5=Resident Spit Out	Init	Name	Signature	Init	Name	Signature	Name		Signature	
								Checked By 1st			
								Checked By 2nd			
								Checked By 3rd			
<b>MEDICATION ADMINISTRATION RECORD</b>				10/1/2021 - 10/31/2021							
Admit Date	10/11/2021	DOB		Unit	West 1	Room	121	Location			

Facility											Pharmacy	PharMerica										Physician										
Allergies	Amitriptyline, Lisinopril																															
Advance Directive																																
Sched for Oct 2021	Hours	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
oxyCODONE HCl Tablet 10 MG Give 2 tablet via G- Tube every 3 hours as needed for Chronic Pain -Order Date- 08/13/2021 0908 -D/C Date- 10/20/2021 1142	Pain Level	7	5	7	8	6	7	7	8	6	7	0	7	8	7	7	0	6	8	7	7	X	X	X	X	X	X	X	X	X	X	X
	PRN	vpgt 0245 E	MeAb 1242 E	trvq 0700 E	pykb 0804 E	tkgf 0409 E	vpgt 0030 E	vpgt 0425 E	pykb 0735 E	tcqy 0041 E	vpgt 0315 E	ubyh 0459 E	vpgt 0320 E	pykb 0833 E	vpgt 2315 E	vpgt 0229 E	ubyh 0636 E	tcqy 1638 E	pykb 1012 E	vpgt 0110 E	vpgt 0230 E	X	X	X	X	X	X	X	X	X	X	X
	Pain Level	8	4	7	8	8	7	8	8	4	6	8	8			8	4	5	5	7		X	X	X	X	X	X	X	X	X	X	
	PRN	pykb 0807 E	MeAb 1907 E	trvq 1200 E	pykb 1106 E	pykb 1228 E	vpgt 0410 E	pykb 1102 E	pykb 1225 E	MeAb 1133 E	tcqy 1450 E	pykb 1316 E	pykb 0747 E			pykb 1327 E	MeAb 1001 E	tcqy 1940 E	ynit 2138 E	vpgt 0500 E		X	X	X	X	X	X	X	X	X	X	
	Pain Level	8		6	5	0	8	7	8	7	5	7	8			6	3			8		X	X	X	X	X	X	X	X	X	X	
	PRN	pykb 1432 E		tcqy 1610 E	ynit 1523 E	ynit 1610 E	pykb 1016 E	vpgt 2305 E	pykb 1646 U	vpgt 2315 E	tcqy 2007 E	vpgt 2300 E	pykb 1240 E			tcqy 1641 E	MeAb 1600 E			pykb 1015 E		X	X	X	X	X	X	X	X	X	X	
	Pain Level	6		5			0		6				3			5	0			5		X	X	X	X	X	X	X	X	X	X	
	PRN	tcqy 2042 E		tcqy 2104 E			ynit 1450 E		tcqy 2033 E				ynit 1609 E			tcqy 2000 E	ubyh 2237 E			ynit 1545 E		X	X	X	X	X	X	X	X	X	X	
	Pain Level						7						7			0				7		X	X	X	X	X	X	X	X	X	X	
	PRN						vpgt 2315 E						vpgt 2315 E			ubyh 2338 E				vpgt 2300 E		X	X	X	X	X	X	X	X	X	X	

<p>Chart Codes / Follow Up Codes</p> <p>---- Follow Up Codes ----          √=Administered          I=Ineffective          E=Effective          U=Unknown          H=On Hold By Physician</p> <p>----- Chart Codes -----          (Refer to the last page of the report for a complete list of chart codes)          OBA=Group Observed - All</p>	<p>OBI=Observed Individual          OBP=Group Observed - Partial          1=Drug Refused          2=Hold/See Nurse Notes          3=Nauseated / Vomiting          4=Pulse below 60/min          5=Resident Spit Out</p>	Init	Name	Signature	Init	Name	Signature		Name	Signature	
									Checked By 1st		
									Checked By 2nd		
									Checked By 3rd		
<p>MEDICATION ADMINISTRATION RECORD</p>				<p>10/1/2021 - 10/31/2021</p>				<p>(9663)</p>			
Admit Date	10/14/2021	DOB		Unit	East 1			Room	141	Location	2

## Case contd.

- At this point given that opioids were no longer contributing to AMS/hypercarbia other etiologies were investigated. Volume overload was likely contributing as it was discovered on discussion with nephrology that patient was hypotensive during HD & therefore being inadequately dialyzed.
- Cardiac meds had not been adjusted given chart diagnoses of HFrEF and hard to control afib. Carvedilol was switched to metoprolol & ultimately beta blocker was continued only on non-HD days, improving HD tolerance.
- Additionally it was discovered that patient in fact does not have a bipap machine at SNF explaining recurrent hypercapnic failure. A machine was arranged in consultation with pulmonology.

# Discharging Hospitalized Patients is Complex

- Numerous data and steps needed to discharge a patient to a SNF.<sup>1</sup>
- No single intervention alone associated with reduced risk for 30-day rehospitalization.<sup>2</sup>
- Evidence based models of transitional care
  - Mary Naylor model: Transitional Care Model<sup>3</sup>
  - Eric Coleman model: Care Transitions<sup>4</sup>
  - Project RED (Re-Engineered Discharge)<sup>5</sup>

<sup>1</sup>Britton MC et al. Mapping the care transition from hospital to skilled nursing facility. *J Eval Clin Pract.* 2020; 26: 786–790.

<sup>2</sup>Hansen LO et al. Interventions to reduce 30-day rehospitalization: a systematic review. *Ann Intern Med.* 2011;155:520-8.

<sup>3</sup>Naylor MD et al. Comprehensive discharge planning and home follow-up of hospitalized elders: A randomized clinical trial. *JAMA.* 1999;281:613-620.

<sup>4</sup>Coleman EA et al. The care transitions intervention: results of a randomized controlled trial. *Arch Intern Med.* 2006;166:1822-1828.

<sup>5</sup>Re-Engineered Discharge (RED) Toolkit. Content last reviewed February 2020. Agency for Healthcare Research and Quality, Rockville, MD.

# Commonalities Among Different Models

- Comprehensive assessment of the patient
- Specific interventions for readmission risk mitigation
- Communicate medication reconciliation and patient/caregiver (facility) medication management capabilities

# Commonalities Among Different Models

- Comprehensive assessment of the patient
- Specific interventions for readmission risk mitigation
- Communicate medication reconciliation and patient/caregiver (facility) medication management capabilities
- Establish specific goals in specific care setting
- Provide training, education, and teach-back for self management
- Communicate essential care transition information to key stakeholders across the care continuum

Naylor MD et al. Comprehensive discharge planning and home follow-up of hospitalized elders: A randomized clinical trial. JAMA. 1999;281:613-620.

Coleman EA et al. The care transitions intervention: results of a randomized controlled trial. Arch Intern Med. 2006;166:1822-1828.

Re-Engineered Discharge (RED) Toolkit. Content last reviewed February 2020. Agency for Healthcare Research and Quality, Rockville, MD.

## Case contd.

- While patient had a chart diagnosis of neurocognitive disorder. At this admission a detailed chart review revealed no prior work up for neurocognitive disorder and no formal assessment of decision making capacity.
- Warm hand off was made to SNF provider with discussion regarding need for palliative care and goals of care conversation with LNOK (ex wife).
- There were no further readmissions over next 2 months

# Fragmentation of Care Associated with Poor Outcomes

- Highly fragmented ambulatory care independently associated with
  - More hospitalizations<sup>1</sup>
  - More ED visits<sup>2</sup>
- More hospitalist fragmentation (< 7-day blocks) associated with<sup>3</sup>
  - Higher 30-day mortality after discharge
  - Higher readmission rate
  - Higher 30-day postdischarge costs
- Implications for outpatient and inpatient care structures?

<sup>1</sup>Kern LM et al. Ambulatory care fragmentation and subsequent hospitalization: evidence from the REGARDS study. *Med Care*. 2021;59(4):334-340.

<sup>2</sup>Liu CW et al. Care fragmentation and emergency department use among complex patients with diabetes. *Am J Manag Care*. 2010;16(6):413-20.

<sup>3</sup>Goodwin JS et al. Association of the work scheduled of hospitalists with patient outcomes of hospitalization. *JAMA Intern Med*. 2020;180(2):215-222.