



Welcome to Today's Expert Webinar for the 2020
MQii Learning Collaborative:

“A Closer Look into the Role of Nutrition in ERAS Protocols”

Wednesday, April 22, 2020

We will get started promptly at
11:00 AM ET
(10:00 AM CT; 9:00 AM MT; 8:00 AM PT)

All phone lines have been muted

The Malnutrition Quality Improvement Initiative (MQii) is a project of the Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders who provided guidance and expertise through a collaborative partnership. Support provided by Abbott.

Before We Get Started...

Cisco Webex Events

File Edit Share View Communicate Participant Event Help

Connected

MQiiTM
MALNUTRITION QUALITY
IMPROVEMENT INITIATIVE

Welcome to Today's Expert Webinar for the 2020
MQii Learning Collaborative:
**"A Closer Look into the Role of Nutrition in
ERAS Protocols"**

April 22, 2020
We will start promptly at 11:00 AM ET
(10:00 AM CT; 9:00 AM MT; 8:00 AM PT)
All phone lines have been muted

The Malnutrition Quality Improvement Initiative (MQii) is a project of the Academy of Nutrition and Dietetics, Avalere Health, and the Centers for Medicare & Medicaid Services. MQii is a collaborative partnership. Support provided by...

Q&A
All (0)

Select a question and then type your answer here. There's a 256-character limit.

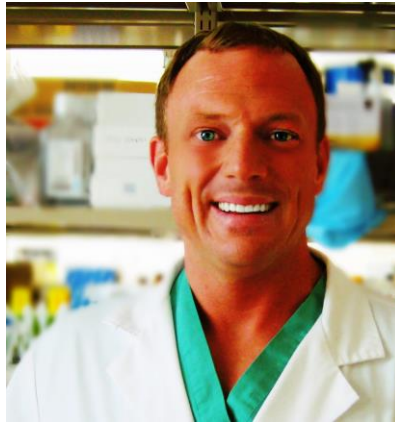
Send Send Privately...

Today's Agenda

Agenda Item	Presenter
Welcome and Introduction	Christina Badaracco, MPH, RD <i>Research Scientist at Avalere Health</i>
Evidence and best practices for supporting nutrition care for surgical patients from pre-admission through discharge	Paul Wischmeyer, MD, EDIC, FASPEN, FCCM <i>Professor of Anesthesiology and Surgery Associate Vice Chair for Clinical Research, Anesthesiology Physician Director, TPN/Nutrition Support Service Duke University School of Medicine</i>
Example of a successful incorporation of nutrition care into an ERAS program including strategies to change culture, tools to overcome barriers, and measures of success	Gina Ward, MS, RDN, CDE <i>Clinical Nutrition Manager and Certified Diabetes Educator Davis Hospital & Medical Center</i>
Questions – 15 mins	



MALNUTRITION QUALITY
IMPROVEMENT INITIATIVE



Paul Wischmeyer, MD, EDIC, FASPEN, FCCM

Professor of Anesthesiology and Surgery

Associate Vice Chair for Clinical Research, Anesthesiology

Physician Director, TPN/Nutrition Support Service

Duke University School of Medicine

- Share evidence and best practices for supporting nutrition care for surgical patients from pre-admission through discharge
- Describe innovative example of care team at Duke University Hospital



MALNUTRITION QUALITY
IMPROVEMENT INITIATIVE



Gina R. Ward, MS, RDN, CDE
Clinical Nutrition Manager
Davis Hospital and Medical Center

- Review best practices to support nutrition care for surgical patients from pre-admission through discharge
- Share examples of successful incorporation of nutrition care into an ERAS program, including strategies to change culture, tools to overcome barriers, and measures of success

I have no financial disclosures.

ERAS: An Opportunity for Malnutrition Quality Improvement



<https://erassociety.org/>

Enhanced Recovery After Surgery: Review

- Perioperative malnutrition is a **challenge** to define, diagnosis, and treat. Poor nutrition status is a strong predictor of **negative** postoperative patient **outcomes**.¹
- **Malnourished** surgical patients have significantly higher:
 - Post-op mortality and morbidity
 - Length of stay (LOS)
 - Readmission rates and overall hospital costs^{2–3}

1. Braga M, Ljungqvist O, Soeters P, Fearon K, Weimann A, Bozzetti F; ESPEN. ESPEN guidelines on parenteral nutrition: surgery. *Clin Nutr.* 2009;28:378–386.

2. Correia MI, Waitzberg DL. The impact of malnutrition on morbidity, mortality, length of hospital stay and costs evaluated through a multivariate model analysis. *Clin Nutr.* 2003;22:235–239.

3. Bozzetti F, Gianotti L, Braga M, Di Carlo V, Mariani L. Postoperative complications in gastrointestinal cancer patients: the joint role of the nutritional status and the nutritional support. *Clin Nutr.* 2007;26:698–709.

Enhanced Recovery After Surgery: Review

- Studies estimate that 24–65% of surgical patients are at higher nutritional risk.^{3–6}
- Undernourished patients or patients at risk for malnutrition are **twice as likely to be readmitted** within 30 days of colorectal surgery.⁷

3. Bozzetti F, Gianotti L, Braga M, Di Carlo V, Mariani L. Postoperative complications in gastrointestinal cancer patients: the joint role of the nutritional status and the nutritional support. *Clin Nutr.* 2007;26:698–709.

4. Thomas MN, Kufeldt J, Kissner U, et al. Effects of malnutrition on complication rates, length of hospital stay, and revenue in elective surgical patients in the G-DRG-system. *Nutrition.* 2016;32:249–254.

5. Awad S, Lobo DN. What's new in perioperative nutritional support? *Curr Opin Anaesthesiol.* 2011;24:339–348.

6. Geurden B, Franck E, Weyler J, Ysebaert D. The risk of malnutrition in community-living elderly on admission

7. Gillis C, Nguyen TH, Liberman AS, Carli F. Nutrition adequacy in enhanced recovery after surgery: a single academic center experience. *Nutr Clin Pract.* 2015;30:414–419.

Enhanced Recovery After Surgery: Review

- ACS National Surgical Quality Improvement Program defines malnutrition as one of the few modifiable preoperative risk factors associated with poor surgical outcomes.^{8–9}
- The risk of malnutrition is most often associated with major GI and oncology surgery^{2–3} because these patients are at greatest risk for baseline malnutrition (~65%).^{3,5,9}



For more information: <https://www.facs.org/quality-programs/acs-nsqip>

Enhanced Recovery After Surgery: Best Practices

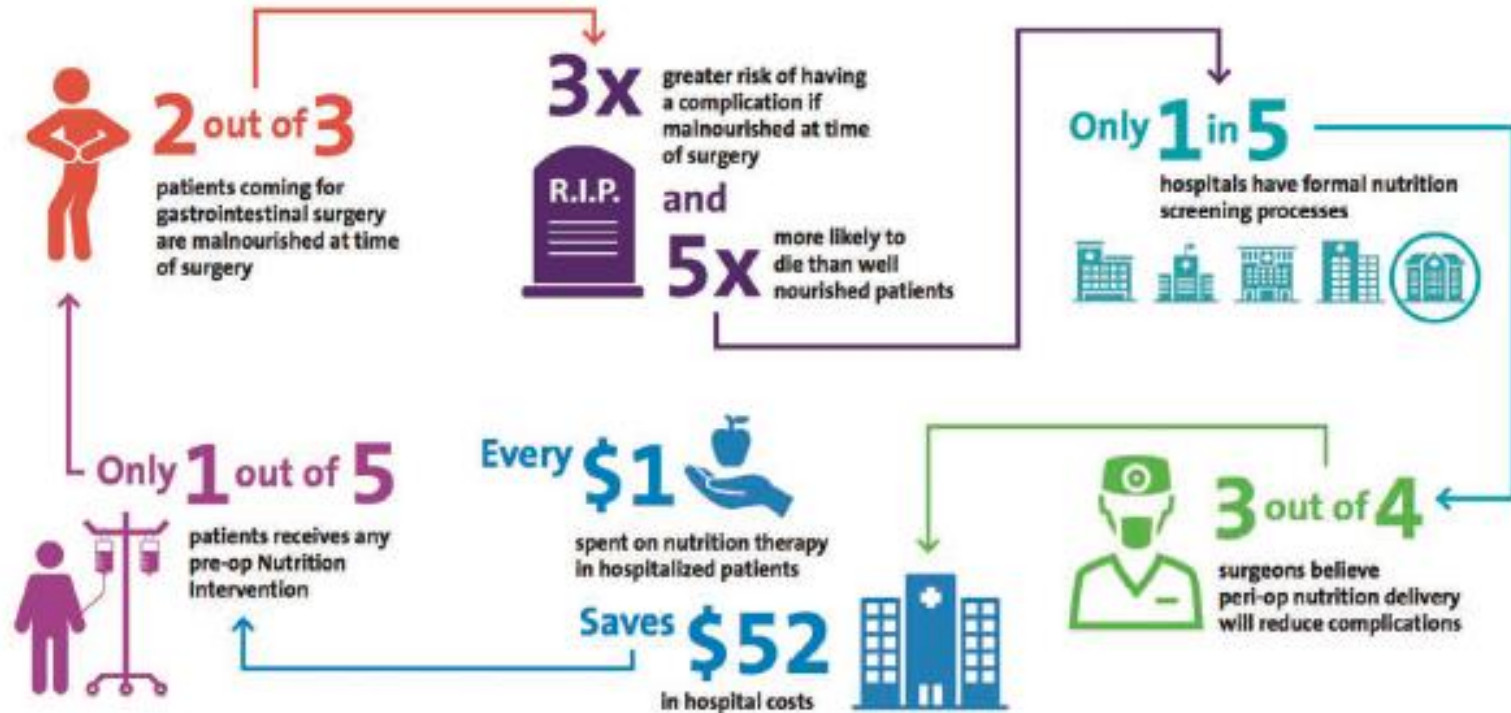


Figure 1. Facts and data for perioperative nutrition screening and therapy. Data drawn from Awad and Lobo⁶, Williams and Wischmeyer¹⁰, and Philipson et al.²⁰ R.I.P. indicates rest in peace.

10. Wischmeyer PE, Carli F, Evans DC, et al. American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on nutrition screening and therapy within a surgical enhanced recovery pathway. *Anesth Analg*. 2018;126:1883–1895.

Principles for Quality Improvement

For clinical nutrition managers who have implemented MQii and are struggling to implement ERAS, keep in mind that the same general principles apply to implement change at your facilities:

1. Seek leadership support.
2. Build your team.
3. Map and modify workflows.
4. Implement QI and eCQM data collection.

Davis Hospital & Medical Center



Davis Hospital and Medical Center (DHMC) opened in 1976 with four operating rooms, 100 beds, and 105 employees. Today, Davis Hospital and Medical Center has 220 beds, over 550 employees, and 200+ active medical staff.

DHMC was acquired by Steward Health Care in 2018. Steward is the largest private, tax-paying physician-led health care network in the United States. Headquartered in Dallas, Texas, Steward operates 37 hospitals in the United States and the country of Malta. Steward employs ~42,000 health care professionals.



Davis Hospital and Medical Center
Jordan Valley Medical Center
Jordan Valley Medical Center-West Valley
Mountain Point Medical Center
Salt Lake Regional Medical Center

STEWARD FAMILY HOSPITALS



Davis Hospital & Medical Center Services

- **ER Trauma Center** *Board-certified emergency physicians and specialized trauma surgeons, Trauma Center Level 3*
- **Chest Pain Center of Excellence** *Interventional cardiology/cardiac catheterization, accredited by American Heart Association.*
- **Stroke Receiving** *American Heart Association Gold-Plus, Honor Roll Elite Recognition*
- **Neurological Services** *Diagnostic and surgical procedures for minimally invasive brain, spinal cord and nervous system issues*
- **Women's Care** *OB/GYN surgical services, maternity care, Level III NICU, on-site spa services, 3-D mammography*
- **Cancer Center** *Tomotherapy® and Brachytherapy. Certified nurse patient navigators coordinate care.*
- **Surgical Services** *Inpatient (hospital) and outpatient (Davis Surgical Center), including robotic-assisted gynecologic, colorectal, urologic and general surgeries.*
- **Orthopedic Program** *Surgeons and fellowship-trained sports medicine specialists provide non-surgical and surgical treatment options, focus on foot/ankle, hand and upper extremities, total joints (knee and hip).*
- **Diabetes & Nutrition** *Comprehensive resource center staffed by Diabetes Educator and Care Specialists as well as Registered Dietitians provide inpatient and outpatient education, certified by the American Diabetes Association Education Recognition Program.*
- **Wound Care** *Inpatient and outpatient wound care, including hyperbaric therapy*
- **Weber Campus** *Satellite campus offers 24-hour full-service emergency care, imaging and laboratory services for patient convenience for the convenience of communities west of I-15.*

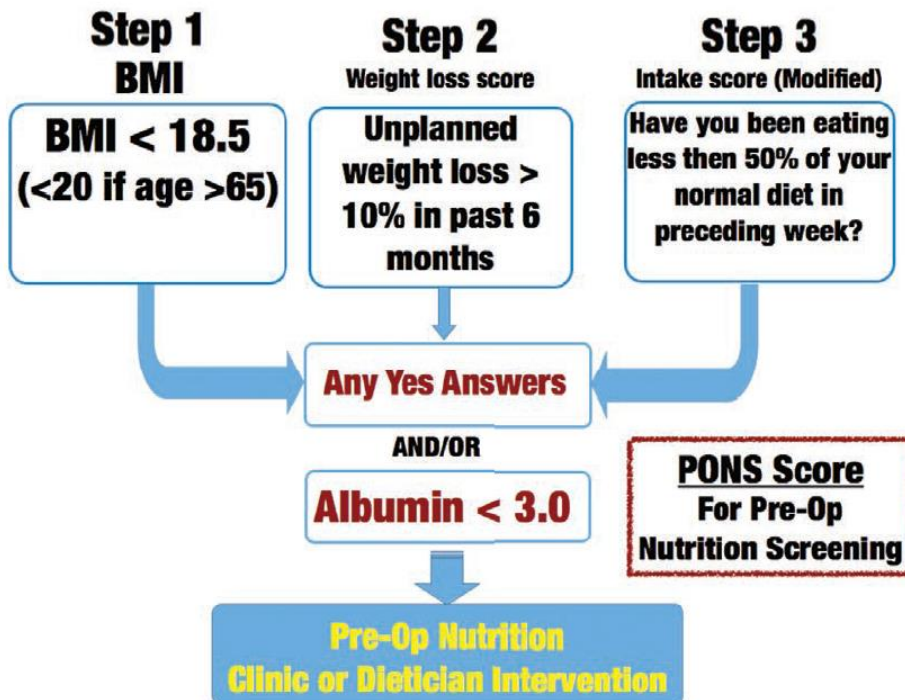
The nutritional status of patients impacts patient outcomes for every service DHMC offers. Improving transitions of care is an opportunity for quality improvement!

Davis Hospital & Medical Center Services

Stakeholder identification: **WHY** should the following individuals care? **HOW** does your QI help these individuals achieve their goals?

- RDs
- Anesthesiologists
- Surgeons/Providers
- Nursing
- Case Management (Discharge planning)
- CDI (Coding)
- Quality Director
- Wound Therapy
- PT/OT/SLP
- Admin (CEO, CFO, CNO, etc.)
- Information Systems
- SNFs/Rehab Facilities
- Patients/Families
- And many more

Preoperative Nutrition Best Practices



- If you do not have a pre-admission clinic, consider **educating providers** (general and trauma surgeons, ENT, oncology—those with high-risk patients) on **outpatient screening and appropriate referrals**.
- **Develop screening tools** that refer to your services for surgical providers to use.

Pre-Surgery: Outpatient Screening Tools

The National Council on Aging (NCOA) has a variety of validated screening tools that you could reference for outpatient screening/physician education:

- Validated Malnutrition Screening & Assessment Tools: Comparison Guide
- Malnutrition Screening Tool (MST)
- Nutritional Assessment (MNA®)
- Malnutrition Universal Screening Tool (MUST)
- Nutrition Risk Screening (NRS-2002)
- Seniors in the Community: Risk Evaluation for Eating and Nutrition (SCREEN©)

Consider creating hospital-specific outpatient screening tools for physicians (which could be automated and downloaded by providers from hospital intranet) for both general malnutrition (MQii) and surgical nutrition (ERAS).

This would be IDEAL if linked to your referral process!





<https://www.ncoa.org/center-for-healthy-aging/resourcehub/community-orgs-and-professionals/professional-resources/malnutrition-screening-tools/>



Pre-Surgery Screening/Assessment

- For patients identified at **high nutrition risk**, provide a way for them to acquire oral nutrition supplements (ONS) at minimal cost prior to surgery.
- At our facility, **patients receive a prescription** for the appropriate nutrition intervention w/ purchasing instructions from the hospital cafeteria.

My surgery date: _____ Time: _____

In the week *before* your surgery:
 Drink ____ bottle(s) of
☐ 
☐ 
 per day for ____ days.
In the boxes below, note the date and place a check mark next to each shake you've finished.

	DATE	SHAKE #1	SHAKE #2	SHAKE #3
7 days before				
6 days before				
5 days before				
4 days before				
3 days before				
2 days before				
1 day before				

In the week *after* your surgery:
 Drink ____ bottle(s) of
☐ 
☐ 
 per day for ____ days.
In the boxes below, note the date and place a check mark next to each shake you've finished.

	DATE	SHAKE #1	SHAKE #2	SHAKE #3
1 day after				
2 days after				
3 days after				
4 days after				
5 days after				
6 days after				
7 days after				

SURGERY

Our hospital surgical department has graciously opted to provide two bottles of carbohydrate-loading nutrition when patients are seen by pre-admitting nurse. However, not all patients are seen by pre-admitting nurse.

For pre-op nutrition clinic/dietitian, check out the MNT Works for Seniors Toolkit from The Academy of Nutrition & Dietetics (which is complimentary for members).

<https://www.eatrightpro.org/payment/medicare/mnt-works-for-seniors-toolkit-form>

ERAS Perioperative Pathway



Pre-operative Nutrition Optimization

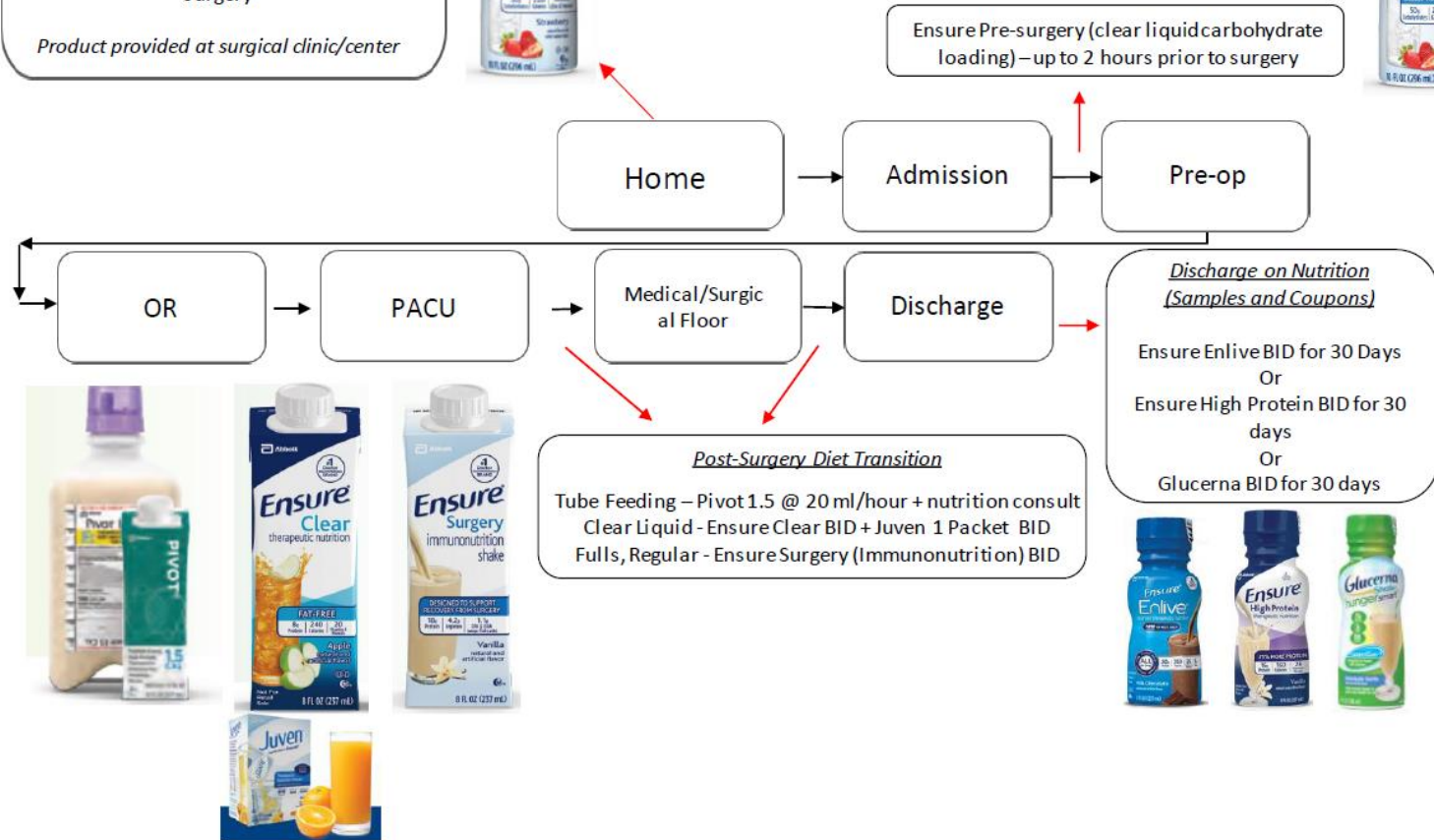
Ensure Surgery (Immunonutrition) BID 5-7 days prior to scheduled surgery

Ensure Pre-surgery (clear liquid carbohydrate loading) 2 bottles night before surgery

Product provided at surgical clinic/center



ERAS Pathway @ DHMC



Automating Inpatient Processes

Scheduled Patient Care

Task retrieval completed

RD consults are automated (MST) but can be ordered by any nurse or provider.

	Name	Location	Medical Record	Scheduled Date and Time	Task Description	Order Details
<input checked="" type="checkbox"/> All Patients					Consult to Dietitian Adult	04/11/20 23:44:18 MDT Order entered secondary to documentation of MST Score 2 or greater.
<input checked="" type="checkbox"/>					Consult to Dietitian Adult	04/13/20 12:39:38 MDT Order entered secondary to documentation of MST Score 2 or greater.
<input checked="" type="checkbox"/>					Consult to Dietitian Adult	04/13/20 11:14:00 MDT, Reason for Consult Poor Appetite/Intake
<input checked="" type="checkbox"/>					Consult to Dietitian Adult	04/13/20 0:52:06 MDT Order entered secondary to documentation of MST Score 2 or greater.

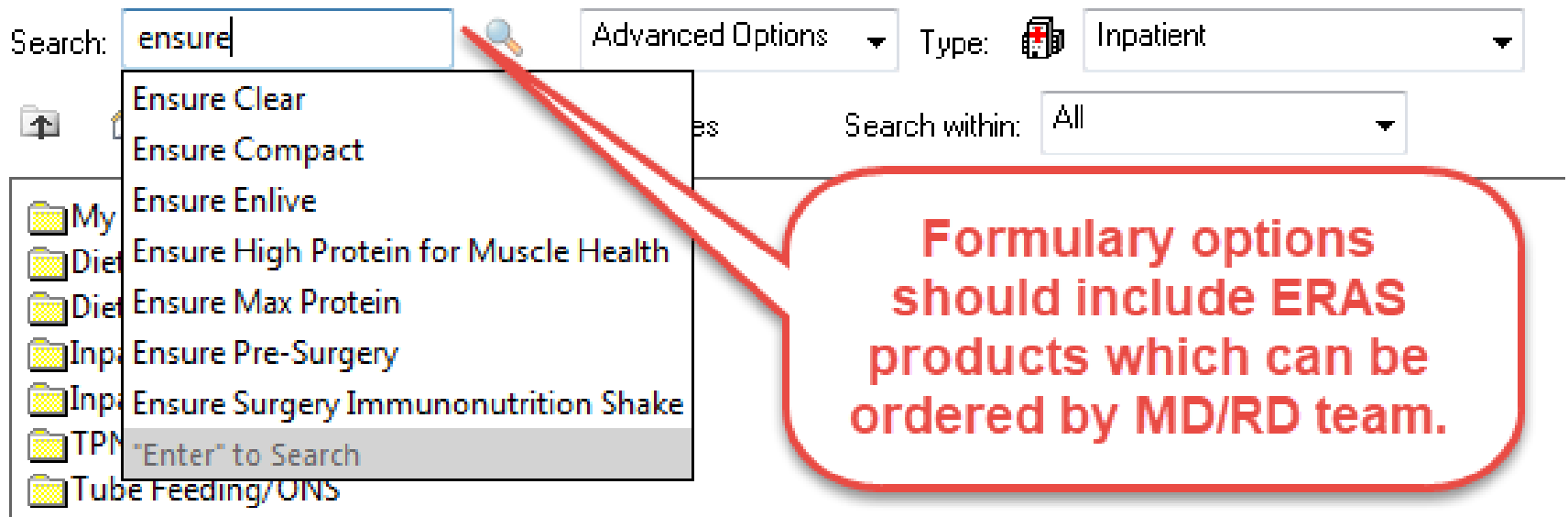
For **physicians** who choose to implement ERAS:

- Automate RD consult on order sets
- Automate ONS or order sets
- Automate discharge Rx for ONS where possible

Dietitians should consider:

- Automate ONS on clear and full liquid diets
- Consults for wound care should trigger RD consult
- Automate order sets and discharge Rx for providers

Automating Inpatient Processes



Dietitians should educate team members on their responsibilities:

- **Physicians:** Order appropriate consults, diagnose malnutrition when appropriate, and order discharge Rx for ONS
- **RDs:** Monitor adequacy of oral intake, determine appropriate ONS, and provide education and recommend discharge Rx for ONS
- **Nurses:** Encourage protein/oral intake, document oral intake (ONS separately, if possible), and consult RD if problems arise

Automating Inpatient Processes

- Remember that best practice is: **oral before enteral before parenteral**.
- Make it easy for providers to order enteral (trophic feedings) or parenteral if needed.
- Physicians will market their success with ERAS workflows to other providers for you!**

New Order Entry +

Inpatient Prescriptions No health plans found

Search New Order

Mine Public Shared

Favorites...My Plan Favorites

PPN 1000 kcal	Gina Ward	Order
PPN 1100 kcal	Gina Ward	Order
PPN 1200 kcal	Gina Ward	Order
PPN 1300 kcal	Gina Ward	Order
PPN 1400 kcal	Gina Ward	Order
TPN Standard Solution 1000 kcal		Order
TPN Standard Solution 1200 kcal		Order
TPN Standard Solution 1400 kcal		Order
TPN Standard Solution 1600 kcal		Order
TPN Standard Solution 1800 kcal		Order
TPN Standard Solution 2000 kcal		Order
TPN Standard Solution 2200 kcal		Order
Tube Feeding ICU Trophic - Gina Ward		Order

I have created nutrition support (4.25% Clinimix PPN and 5-15% Clinimix TPN order sets for providers. They can select "Shared" and type in my name to see this list and then save in their favorites list.

This is a physician favorite and we have a lot less issues with orders to pharmacy with order sets in place. Providers tell NEW providers about these order sets for me!

Orchestrating the Discharge Rx

- **Physicians** can select from discharge ONS Rx that are already set up for them.
- **Dietitians** can also select from this list and recommend them for physicians.

The easier the workflow or process, the more likely it is to be implemented!

New Order Entry +

Inpatient Prescriptions

Search New Order

Mine Public Shared

Favorites...ONS Discharge Rx

Misc Prescription
Ensure Enlive, 1, Oral, BID, Please consume 1-8 oz bottle twice daily for two weeks to promote wound healing. Patient preference on flavor., X 14 days, # 28 bottles, 0 Refill(s) **Order**

Misc Prescription
Nepro, 1, Oral, BID, Please consume 1-8 oz bottle twice daily for added protein and calories. Flavor preference per patient., X 14 days, # 28 bottles, 0 Refill(s) **Order**

Misc Prescription
Glucerna, 1, Oral, BID, Please consume 1-8 oz bottle twice daily for added protein and calories. Flavor preference per patient., X 14 days, # 28 bottles, 0 Refill(s) **Order**

Misc Prescription
Ensure Clear, 1, Oral, BID, Please consume 1-8 oz bottle twice daily for added protein and calories. Flavor preference per patient., X 14 days, # 28 bottles, 0 Refill(s) **Order**

Misc Prescription
Ensure Compact, 1, Oral, BID, Please consume 1-4 oz bottle twice daily for added protein and calories. Flavor preference per patient. Appropriate for dysphagia, X 14 days, # 28 bottles, 0 Refill(s) **Order**

Misc Prescription
Juven (Amino Acid Protein Powder), 1, Oral, BID, Please mix 1 packet Juven in 8 oz any liquid and consume twice daily for added protein and calories. Flavor preference per patient., X 14 days, # 28 packets, 0 Refill(s) **Order**

Misc Prescription
Ensure Pre-Surgery, See Instructions, Drink 1-2 bottles the night prior to surgery and 1 bottle up to 4 hours prior to surgery (3-10 oz bottles total) for 1 day prior to surgery., # 3 bottles, 0 Refill(s) **Order**

Misc Prescription
Ensure Surgery Immunonutrition Shake, 1, Oral, BID, 1 bottle (8 fl oz) twice daily for 1 week postop., X 1 weeks, # 14 bottles, 0 Refill(s) **Order**

Follow-Up: The TEAM approach to care!

Physicians: Emphasize good nutrition peri-operatively, diagnosis if appropriate, and make referrals. In surgery, physicians work with RDs to lead the team.

Dietitians: Assess, educate, implement nutrition interventions, and ensure meeting patient needs. RDs lead.

Nurses: Help implement nutrition interventions, encourage and document intake, and make referrals when appropriate.



Nutrition education of all team members is a huge component of RD leadership in MQii and ERAS implementation. Utilize resources, do your homework, anticipate barriers, and find out how to get what matters to YOU matter to OTHERS!

Achieving Value in Healthcare

$$\begin{array}{c} \text{V} \\ \text{(VALUE)} \end{array} = \frac{\begin{array}{c} \text{Q} + \text{S} \\ \text{(QUALITY) (SERVICE)} \end{array}}{\begin{array}{c} \$ \\ \text{(COST)} \end{array}}$$

“Achieving high value for patients must become the overarching goal of health care delivery, with **value** defined as the **health outcomes achieved per dollar spent**. This goal is what matters for patients and **unites** the interests of all actors in the system.”

<http://www.nejm.org/doi/full/10.1056/NEJMp1011024?viewType=Print>

Hospital Quality Improvement

Hospital Value-Based Purchasing (VBP)

- **Payment adjustments based on interventions and outcomes related to:**
- Patient/Caregiver-Centered Experience of Care
- Safety
- **Clinical Care (Patient Outcomes)**
- Efficiency and Cost Reduction



Readmission Reduction Programs (HRRP)

Payment reduced to hospitals with excess readmissions (for applicable conditions readmitted within 30 days) as benchmarked against national averages

- Acute MI
- CHF
- Pneumonia
- COPD
- **Total Joint Arthroplasty**
- CABG

Hospital-Acquired Condition Reduction Program (HACRP)

Payment reduced for hospitals ranking in the bottom 25% of Hospital-Acquired Condition quality measures

- **AHRQ Patient Safety indicators (wounds)**
- Central Line-Associated Blood Stream Infections
- **Surgical Site Infection for colon surgery**
- MRSA, *C. difficile*

DHMC Malnutrition QI: Malnutrition Dx

Count of Final Diagnosis I10						
	E40	E43	E440	E441	E46	Grand Total
2019						
Jan		21	12	5	7	45
Feb	1	21	11	4	8	45
Mar		9	19	1	5	34
Apr		15	6	4	9	34
May		16	14	1	9	40
Jun		13	10	1	6	30
Jul					6	34
Aug		20	15	2	6	43
Sep		19	6	4	8	37
Oct		16	12	1	4	33
Nov		26	9	3	6	44
Dec		19	14	2	8	43
2020						
Jan		19	5	2	12	38
Feb		18	6	1	12	37
Grand Total	1	247	149	34	106	537

Mild,
Moderate
or Severe
PCM

Unspecified
PCM

Down 1.5 FTEs
RD staff, less
NFPE done

The 2019 Malnutrition QI had three goals:

1. Improve accuracy of malnutrition diagnosis (unspecified malnutrition versus mild, moderate or severe).
2. Improve accuracy of coding that calculates into DRG (affects LOS).
3. Develop staff and provider education/training.

Reimbursement Implications

E40 Malnutrition

E43 Severe PCM

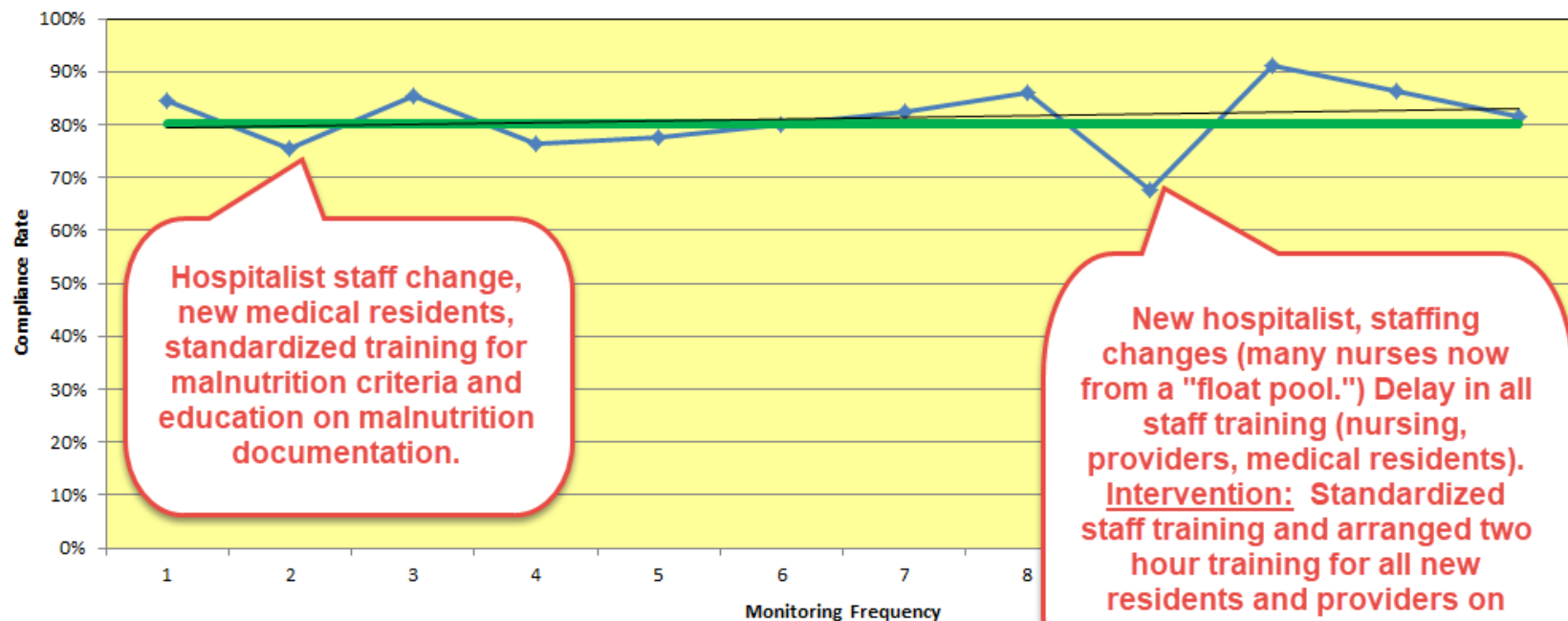
E44.0 Moderate PCM

E44.1 Mild PCM

E46 Unspecified PCM

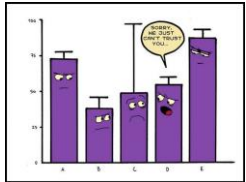
DHMC Malnutrition QI: Malnutrition Dx

Corrective Action (CAR#)



Monitoring Frequency (Daily, Weekly, Monthly, 90 Days)												
Date of Audit/Monitoring	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Numerator (<i>Specified Type</i>)	38	34	29	26	31	24	28	37	25	31	38	35
Denominator (<i>Total Audited</i>)	45	45	34	34	40	30	34	43	37	34	44	43
Benchmark/Threshold	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Compliance Rate	84%	76%	85%	76%	78%	80%	82%	86%	68%	91%	86%	81%

Overcoming Barriers to ERAS Implementation



- **Budget.** Surgery often has a larger budget than other departments. Make friends with your head of anesthesiology and surgical director. Provide education (w/ food is best). Provide an order set/MEC policy proposal for their review and ask for feedback (scheduling, education needs, etc.) Market your ability to help them/their patients!
- **Data collection.** Enlist help of coding department. They can attest to the diagnosis-related group (DRG) assignment and how it impacts reimbursement for comorbidity and complication (CC) and major comorbidity and complication (MCC). This also impacts authorized length of stay.
- **Electronic health record/information systems.** Enlist the help of these individuals for reports, automation of triggers, and how to build order sets and discharge Rx in the system to make it easy for physicians.
- **Volunteer w/ a QI project.** Quality directors rarely get volunteers to help with their department. They will jump at the chance to have you help them!
- **Offer to educate.** Present at grand rounds, resident or nursing training, and staff education/meetings. Providers/colleagues appreciate your offer of help and you can recruit team members!

Key Lessons



Gina R. Ward, MS, RDN, CDE
gina.ward@steward.org
Thanks for your time today!

Other things I have learned:

- Excel. Don't trust your E.H.R. to have every report that you need. Learn database basics and continue to learn. It's daunting, but you get better with time.
- Listen. Some of your best ideas for overcoming barriers come from listening to others "vent."
- Be tenacious and don't give up! Reach out to others for help if you need it, because we all do from time to time . . .

Questions?



15 mins