Improving Recognition of Malnutrition at UNMH

Jens O Langsjoen, MD; Anthony J Worsham, MD; Aly Raboff, MS-II; Sam Paltrow-Krulwich, MS-II

Background

Malnutrition is a significant indicator for severity of illness and expected mortality measures. Severe malnutrition is a Major Complication/Comorbidity (MCC). Only 4.7% of UNMH inpatients are diagnosed with malnutrition at discharge compared with a national inpatient prevalence of 20-50%.
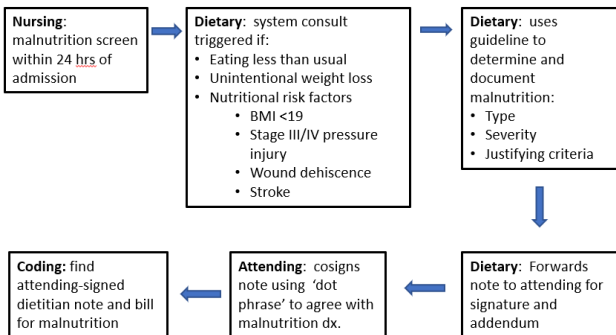
To improve capturing of malnutrition, an interdisciplinary process was developed:
- Nurse malnutrition screening has been updated to be more sensitive
- Local consensus guideline developed to align coders and documentation practices for malnutrition diagnosis and severity classification.
- Dietitians trained to forward notes to attendings
- 'dot phrase' developed: "I agree with the above dx of malnutrition" and attendings trained to addend forwarded malnutrition notes

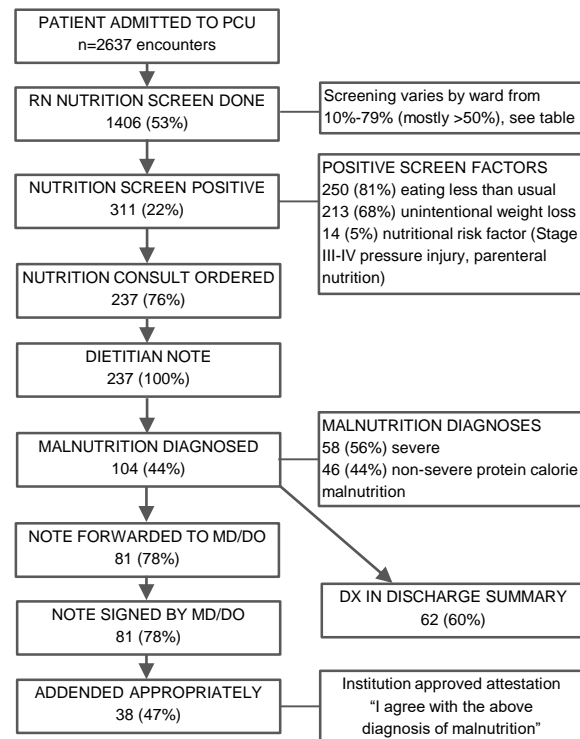To measure the impact of this process, an audit was performed.

Methods

Study population: all adult inpatient encounters first admitted to the Progressive Care Units (3-N, 3-E, 4-S, 4-E, 4-W, 5-S, 5-E, 5-W, 6-S, 7-S) over a three-month period from 08/18/2019 to 11/18/2019. Data were pulled from Powerinsight, a database querying tool that accesses information from Powerchart, and additional fields were populated by manual chart review. Analyses were done to assess the completion of each step in the malnutrition capture process.

Nursing: malnutrition screen within 24 hrs of admission

Dietary: system consult triggered if:
- Eating less than usual
- Unintentional weight loss
- Nutritional risk factors
  - BMI <19
  - Stage III/IV pressure injury
  - Wound dehiscence
  - Stroke

Dietary: uses guideline to determine and document malnutrition:
- Type
- Severity
- Justifying criteria

Dietary: Forwards note to attending for signature and addendum

Attending: cosigns note using 'dot phrase' to agree with malnutrition dx.

Coding: find attending-signed dietitian note and bill for malnutrition

Results

Audit Flow Algorithm

PATIENT ADMITTED TO PCU
n=2637 encounters

RN NUTRITION SCREEN DONE
1406 (53%)
→ Screening varies by ward from 10%-79% (mostly >50%), see table

NUTRITION SCREEN POSITIVE
311 (22%)
→ POSITIVE SCREEN FACTORS
250 (81%) eating less than usual
213 (68%) unintentional weight loss
14 (5%) nutritional risk factor (Stage III-IV pressure injury, parenteral nutrition)

NUTRITION CONSULT ORDERED
237 (76%)

DIETITIAN NOTE
237 (100%)

MALNUTRITION DIAGNOSED
104 (44%)
→ MALNUTRITION DIAGNOSES
58 (56%) severe
46 (44%) non-severe protein calorie malnutrition

NOTE FORWARDED TO MD/DO
81 (78%)

NOTE SIGNED BY MD/DO
81 (78%)
→ DX IN DISCHARGE SUMMARY
62 (60%)

ADDENDED APPROPRIATELY
38 (47%)
→ Institution approved attestation "I agree with the above diagnosis of malnutrition"

Of 2637 patients, 53% had the initial malnutrition screen completed. 311 (22%) of these patients screened positive for malnutrition.

Ward completion rate for malnutrition screen

Floor	Total patients	Percentage screened for malnutrition
3 East	138	68
3 North	153	73
3 South	172	74
4 East	113	74
4 South	296	61
4 West	448	38
5 East	205	75
5 South	389	10
5 West	294	50
6 South	156	55
7 South	268	79

Conclusion

Opportunities for Improvement Identified by the Audit:
- **Nurse Screening:** 47% of encounters did not receive the malnutrition screen, despite this being a TJC requirement. Nutritional risk factors infrequently completed during the screen.
- **Dietary Evaluation**: Positive screens don't always resulted in dietary consults (24% don't). 44% of positive screens diagnosed with malnutrition by dietitian, indicating a high yield process overall. 78% of notes are forwarded to attendings.
- **Provider Documentation**: Only 47% of forwarded notes are being addended by providers. 40% of discharge summaries for malnourished patients don't include malnutrition in list of diagnoses.
- **Coding/Billing:** Encounters with a discharge diagnosis of malnutrition increased from 5% up to 10% with the new process. Attending-addended dietitian notes are likely being rejected by CMS.

Failures of the malnutrition screening and capture process are likely causing:
- Underestimation of UNMH's expected mortality
- Inflation of UNMH's mortality index
- Loss of revenue

Next steps:
- Change nursing screen to mandatory field in Powerchart
- Work with IT to resolve dropped system-generated dietary consults
- Add malnutrition prompt to provider discharge summaries