Improving Recognition of Malnutrition at UNMH

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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 attending
- ‘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
- **Coding:** finds attending signed dietitian note and bill for malnutrition
- **Attending:** assigns note using ‘dot phrase’ to agree with malnutrition dx.
- **Dietary:** forwards note to attending for signature and addendum

**Results**

- **Patient Admitted to PCU** n=2637 encounters
- **RN Nutrition Screen Done** 1406 (53%)
- **Nutrition Screen Positive** 311 (22%)
- **Nutrition Consult Ordered** 237 (76%)
- **Dietitian Note** 237 (100%)
- **Malnutrition Diagnosed** 104 (44%)
- **Note Forwarded to MD/DO** 81 (78%)
- **DX in Discharge Summary** 62 (60%)
- **Note Signed by MD/DO** 81 (78%)
- **Added Appropriately** 38 (47%)

**Screening** varies by ward from 10%-79% (mostly >50%), see table

### 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)

### Malnutrition Diagnoses

- 58 (56%) severe malnutrition
- 46 (44%) non-severe protein calorie malnutrition

**Audit Flow Algorithm**

Of 2637 patients, 53% had the initial malnutrition screen completed.

311 (22%) of these patients screened positive for malnutrition.

<table>
<thead>
<tr>
<th>Ward completion rate for malnutrition screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor</td>
</tr>
<tr>
<td>3 East</td>
</tr>
<tr>
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<td>5 West</td>
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<tr>
<td>6 South</td>
</tr>
<tr>
<td>7 South</td>
</tr>
</tbody>
</table>

**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 result 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
- Overinflation 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