Implementation and use of an electronic Malnutrition Screening Tool (MST) in the cancer care pathway at Miami Cancer Institute (MCI)

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implementation and use of an electronic malnutrition screening tool (E-MST) in the cancer care pathway at miami cancer institute

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Introduction

- An estimated 90% of oncology pts. in the U.S. are treated in the outpatient cancer setting.
- Studies show that pts. receiving outpatient multi-modal treatment are at increased risk for malnutrition.
- Unfortunately, the majority of patients receiving outpatient cancer care do not receive routine screening for malnutrition or nutrition referrals.
- Early nutrition screening and interventions can help minimize malnutrition and may improve outcomes.
- Clinical decision support (CDS) tools delivered via electronic medical records have been proposed as a way to improve patient outcomes.

Program Implementation, cont.

Electron图标 Malnutrition Screening Tool

- Referrals to Registered Dietitian/Nutritionist were generated using E-MST scores for further assessment and intervention in Radiation and Infusion clinics.

Supplemental Screening Process

- Bi-weekly workflow: patients were screened using E-MST by tumor site during weekly radiation encounters, and prioritized for referral by site and score.

Purpose

- To describe implementation of Electronic Malnutrition Screening Tool (E-MST) at Miami Cancer Institute as part of the pathway used to identify patients at risk for or with malnutrition.
- To report initial outcomes of the program.
- To describe results of a survey evaluating staff awareness and perceptions of the E-MST.

Program Implementation

Implementation of Electronic MST Tool

- Between 2017-2018, our team collaborated with members of the Health Informatics Team and the Dept. of Nursing to implement a clinical decision support (CDS) pathway to capture cancer patients at risk for malnutrition.
- The Information Technology (IT) team embedded the MST into the existing electronic medical record system using MCI’s current clinical information platform.

Educating Staff about Malnutrition Screening

- To educate nursing about the new E-MST, staff shared info with RNs and Medical Assistants (MAs) during rounds, nursing huddles, individual teaching sessions, and continuing education conferences.

Overview of Malnutrition Screening Workflow

- At initial, follow up and weekly visits.
  - MAS/RNs screened patients for BMI, weight loss history and intake pattern.
  - Values were used to capture vital weight statistics and then scored.

Results

- Total malnutrition screening encounters increased by 30% following adoption of E-MST (Pre<30, Post: 60%)
- From Jan to Dec’18 in Infusion, 36.1% (n=302) of the 836 total nutrition consults were generated by E-MST (Fig 4).
  - From Oct’18 to Dec’18, 23.7% of nutrition consults in Infusion and 60% of nutrition consults in Radiation and Oncology were generated by E-MST (Fig 5).
- While data on MST referrals at all sites from inception is not available, >77% of patients treated had either an initial nutrition assessment, follow-up assessment or brief encounter to determine their nutrition needs and interventions.

Conclusions

- Results of the project illustrate the feasibility of implementing and using an E-MST as a standard of care in the outpatient cancer care pathway.
- Data on referral volume suggest that when implemented, E-MST tools will be used, leading to referrals for patients at risk for malnutrition that could have been missed otherwise.
- The volume of malnutrition referrals coming from the tool in both Radiation Oncology and Infusion areas (20-30%) suggest that a substantial portion of patients in these populations may require interventions to prevent/address malnutrition.
- Results of the survey indicate that education used to train staff was largely effective, but that additional work may be needed to ensure 100% awareness and support for the tool.

Future Implications

Partnering to Address Malnutrition in Patients Undergoing Cancer Treatment and Generate Outcomes Research

- Data on malnutrition rates in different disease groups, treatment roadmaps, and risk factors based on the E-MST tool are needed.
- This data will help us to better determine how certain diagnosis among our population could benefit from directed nutrition intervention and how targeted nutrition interventions impact care and best outcomes.
- Collaborative services offered at MCI include psychiatry, exercise physiology, brain rehabilitation, and integrative therapies; future collaboration within the Patient Support Center using outcomes from the MST process will further benefit how we direct Long Term Care incorporating nutrition intervention information from our care pathway.

References