

PATIENT GENERATED SUBJECTIVE GLOBAL ASSESSMENT (PG-SGA©) IS EFFICIENT FOR SCREENING, TRIAGE, AND BRIEF INTERVENTION IN OUTPATIENT ONCOLOGY PATIENTS

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INTRODUCTION

Malnutrition has been reported to be present in approximately 20-70% of cancer patients¹. Furthermore, it is estimated that 10–20% of cancer deaths are related to malnutrition, rather than the malignancy itself². Malnutrition can negatively impact clinical outcomes, prognosis, quality of life, and survival. Early nutrition intervention has the potential to improve health and nutrition outcomes in oncology patients³. The Academy of Nutrition and Dietetics and the American Society for Parenteral and Enteral Nutrition (ASPEN) recommend nutrition screening for oncology patients^{4,5}. The Patient-Generated Subjective Global Assessment (PG-SGA©) is a validated screening tool in outpatient oncology patients⁶. Across the country, an average of one dietitian is available for every 2,308 patients in outpatient cancer centers⁷. This represents a critical need to employ unique strategies to provide nutrition interventions to patients that may otherwise not have access to a dietitian.

BACKGROUND

The PG-SGA© tool is an interdisciplinary patient assessment in oncology and other chronic catabolic conditions. It assesses weight, intake, symptoms, functional status, disease state, metabolic stress and nutritional physical examination. The scored PG-SGA© allows for triaging of specific nutrition interventions, as well as facilitating quantitative outcomes data collection. The PG-SGA© encompasses both a patient completed and medical professional portion. Approximately 80-90% of the total point score is patient-generated. The majority of patients complete the patient portion in less than three minutes, while completion of both the patient and professional portions has been found to take less than five minutes8. Our institution utilizes the PG-SGA© SF, the patient completed portion, for screening purposes.

METHODS

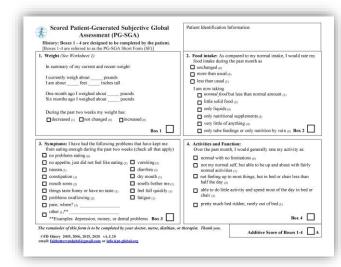
The PG-SGA© (SF) questionnaire was electronically assigned via Epic MyChart to all new Radiation Oncology patients with a head and neck or gastrointestinal cancer diagnosis during a three-month period in late 2024. Results of the PG-SGA© (SF) questionnaire were pulled to a facility-generated PG-SGA© (SF) report. The dietitian triaged completed PG-SGA© (SF) scores and sent electronic patient messages based on the following criteria:

Score 0-3: dietitian generated electronic message indicating patient had scored at low nutrition risk, but nutrition status could change during the course of cancer treatment and was encouraged to contact the dietitian if needed.

Score 4-8: dietitian generated electronic message indicating patient had scored at a moderate nutrition risk. Dietitian consult was not automatically generated but patient was sent electronic nutrition education materials and access to a self-paced module on nutrition during cancer treatment. Patients were instructed that a dietitian is available for consultation if desired or if their nutrition status worsened.

Score ≥9: automatic dietitian consultation.

FIGURE 1

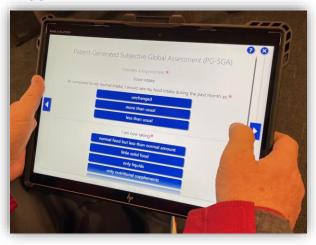


PG-SGA(SF)© questions

RESULTS

The PG-SGA© (SF) was electronically assigned to 313 patients and completed by 161 patients, which represents a response rate of 51.4%. Of the completed questionnaires, 92 (57.1%) resulted in a score <9 and 69 (42.9%) resulted in a score of ≥9. Of those scoring 0-3 and 4-8, 44 (93.6%) and 33 (73.3%), respectively, received a dietitian generated electronic message. Of those scoring ≥9, 21 (30.4%) had a dietitian consultation order placed. Reasons for not receiving electronic

FIGURE 2



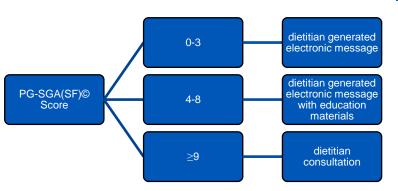
Patient completing electronic PG-SGA(SF)©

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Education materials provided in electronic message

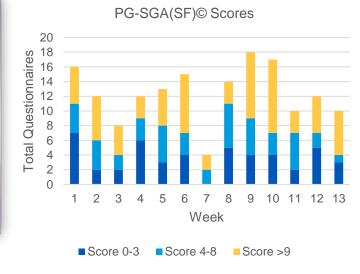
communication or dietitian consultation included current hospitalization, use of enteral nutrition, patient was already followed by a dietitian or scheduled to see a dietitian. Average time to review PG-SGA© (SF) scores, place dietitian consultation orders and send triaged messages was 30.3 minutes per week with an average time of 2.9 minutes per completed questionnaire. Of the 30.3 minutes, an average of 13.9 minutes per week was utilized for sending triaged messages.

FIGURE 4



PG-SGA(SF)© triage workflow

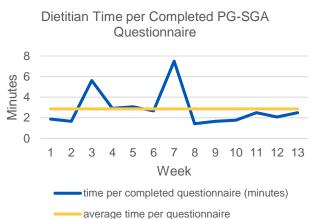
FIGURE 5



CONCLUSIONS

All patients should be screened for nutrition risk. Utilizing triaging criteria for patients scoring <9 on the PG-SGA© (SF) is a time efficient strategy to screen, triage, and provide brief nutrition intervention in outpatient oncology patients. Future opportunities include automation to order dietitian consultations and send triaged messages to patients based on PG-SGA© (SF) scores, in addition to determining appropriate timing for re-screening as patients continue cancer treatment.

FIGURE 6



REFERENCES

- Abbott, J., Teleni, L., McKavanagh, D. et al. Patient-Generated Subjective Global Assessment Short Form (PG-SGA SF) is a valid screening tool in chemotherapy outpatients. Support Care Cancer 24, 3883–3887 (2016).
- Arends, Jann. "Malnutrition in cancer patients: Causes, consequences and treatment options." European journal of surgical oncology: the journal of the European Society of Surgical Oncology and the British Association of Surgical Oncology, 107074. 14 Sep.
- August, David Allen et al. "A.S.P.E.N. clinical guidelines: nutrition support therapy during adult anticancer treatment and in hematopoietic cell transplantation." JPEN. Journal of parenteral and enteral nutrition vol. 33,5 (2009): 472-500.
- Beirer, A. Malnutrition and cancer, diagnosis and treatment. memo 14, 168–173 (2021).
- Ottery, Faith. Pt-Global: PG-SGA©. 2014. 3 April 2025. https://pt-global.org/ot-global/.
- Richards, Julie et al. "Impact of Early Incorporation of Nutrition Interventions as a Component of Cancer Therapy in Adults: A Review." Nutrients vol. 12,11 3403. 5 Nov. 2020.
- Thompson, Kyle L et al. "Oncology Evidence-Based Nutrition Practice Guideline for Adults." Journal of the Academy of Nutrition and Dietetics vol. 117,2 (2017): 297-310.e47.
- Trujillo, Elaine B, et al. "Inadequate Nutrition Coverage in Outpatient Cancer Centers: Results of a National Survey." J Oncol (2019).

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