



VANDERBILT UNIVERSITY

PREOPERATIVE EVALUATION OF NUTRITIONAL STATUS IN PATIENTS UNDERGOING SURGERY FOR GYNECOLOGIC MALIGNANCY

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BACKGROUND

- Preoperative malnutrition is associated with increased perioperative complications:
 - Surgical site infection¹
 - Poor wound healing²
 - Adverse oncologic outcomes³
- Lack of data on the prevalence of preoperative malnutrition and vitamin deficiencies in gynecologic oncology.
- The goal of this study is to identify the prevalence of preoperative malnutrition and vitamin deficiencies in patients undergoing surgery for gynecologic cancer at our institution

METHODS

- Retrospective cohort study of all patients newly diagnosed with gynecologic cancer who underwent surgery at our institution from 2008-2018 .
- Inclusion criteria: ages of 18-89 years, had initial care at our institution, and underwent initial surgery within 6 months of diagnosis
- Exclusion criteria: dual primaries, recurrent disease, or borderline tumors of the ovary
- Cases identified using the Synthetic Derivative, a deidentified copy of our institution's electronic medical record
- Primary outcome: prevalence of malnutrition as defined by albumin \leq 3.0g/dL
- Secondary outcome: prevalence of vitamin deficiencies including vitamin B12, C, D, folate and zinc

RESULTS

Table 1. Completion of preoperative nutritional laboratory workup within 90 days prior to surgery

	Any labs completed ^a	Additional nutrition labs ^b
All patients (N=717)	334/717 (47%)	30/344 (8.7%)
Uterine (N=437)	172/437 (39%)	16/172 (9.3%)
Ovarian (N=203)	132/203 (65%)	17/132 (12.8%)
Cervical (N=39)	15/39 (38%)	2/15 (13.3)
Vulvovaginal (N=37)	13/37 (35%)	2/13 (15.3%)

Table 2. Prevalence of preoperative malnutrition and vitamin deficiency

	Prevalence of malnutrition (albumin \leq 3.0g/dl)	Prevalence of Vitamin Deficiency
All patients (N=717)	12/334 (4%)	6/30 (20%)
Uterine (N=437)	1/170 (0.5%)	1/16 (6.25%)
Ovarian (N=203)	11/130 (8.5%)	5/17 (29%)
Cervical (N=39)	0/15 (0%)	0/2 (0%)
Vulvovaginal (N=37)	0/13 (0%)	0/2 (0%)

^a Albumin, prealbumin, vitamin B12, C, D, folate and zinc
^b Excluding albumin

CONCLUSIONS

- Lack of guidance on appropriate preoperative evaluation of patients with gynecologic malignancies
- A minority of patients within our cohort were evaluated for nutritional or vitamin deficiencies prior to surgery
 - Potentially reversible and easily treatable deficiencies were identified in several of these patients
 - Ovarian cancer patients were at particular risk of being malnourished

NEXT STEPS

- Opportunities for improvement in the preoperative evaluation and management of malnutrition and vitamin deficiencies, particularly among ovarian cancer patients
 - Evaluate utility of malnutrition screening tool (MST)
 - Alerts within EMR based on BMI or weight change in outpatient setting

REFERENCES

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