The Investigations Required Before Referring a Patient to a Gynaecologic Oncologist

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Abstract

Objective: To provide guidance for referring physicians regarding what gynaecologic oncologists want and do not require in the referral package for a new patient.

Methods: An email survey was circulated to all members of the Society of Gynecologic Oncology of Canada (GOC) asking what they felt was required in a new patient referral package so that they could provide a timely consultation and management plan.

Results: The survey had a 79% response rate among 121 GOC members. Before referral of patients with endometrial cancer, 50% of respondents did not want additional investigations; only 4% wanted an MRI performed prior to them seeing the patient. For patients with high-grade cancers of the uterus (including serous), 40% wanted to see the patient without further investigations, while 42% wanted a CT scan report to be included in the referral package. For patients with cervical cancer, 56% of respondents wanted to see the patient without any further investigations, while 24% wished to have an MRI report included in the referral package. For patients with vulvar cancer, 50% of respondents did not want any further investigations; for patients with a pelvic mass, the majority of respondents wanted a serum CA 125 level in the referral package, while 0% to 3% only wanted an MRI. The preferred modality for imaging of the chest was a chest X-ray only.

Conclusion: Our survey indicated that gynaecologic oncologists want little information in the referral package beyond the biopsy result. MRI is not required in the workup of most patients with a pelvic mass or uterine cancer.

Résumé

Objectif : Offrir des lignes directrices aux médecins orienteurs à l'égard de ce que les gynéco-oncologues souhaitent obtenir et de ce qu'ils ne souhaitent pas obtenir dans le dossier d'orientation d'une nouvelle patiente.

Méthodes : Nous avons fait parvenir (par courriel) un sondage à tous les membre de la Société de gynéco-oncologie du Canada (GOC) pour leur demander de nous indiquer ce que le dossier d'orientation d'une nouvelle patiente devait comprendre (selon eux) pour leur permettre de procéder à une consultation et de formuler un plan de prise en charge en temps opportun.

Résultats : Le sondage a obtenu un taux de réponse de 79 % parmi les 121 membres de la GOC. Avant de se voir orienter des patientes présentant un cancer de l'endomètre, 50 % des répondants ne souhaitaient pas obtenir des explorations additionnelles; seuls 4 % des répondants souhaitaient la tenue d'une IRM avant qu'une patiente soit orientée vers leurs services. Dans le cas des patientes qui présentent des cancers de l'utérus de haut grade histologique (y compris les cancers séreux), 40 % des répondants souhaitaient voir la patiente sans qu'aucune autre exploration ne soit menée au préalable, tandis que 42 % souhaitaient qu'un rapport de tomodensitographie soit inclus dans le dossier d'orientation. Dans le cas des patientes qui présentent un cancer du col utérin, 56 % des répondants souhaitaient voir la patiente sans qu'aucune autre exploration ne soit menée au préalable, tandis que 24 % souhaitaient qu'un rapport d'IRM soit inclus dans le dossier d'orientation. Dans le cas des patientes qui présentent un cancer de la vulve, 50 % des répondants souhaitaient voir la patiente sans qu'aucune autre exploration ne soit menée au préalable; dans le cas des patientes qui présentent une masse pelvienne, la majorité des répondants souhaitaient que le taux sérique de CA-125 soit inclus dans le dossier d'orientation, tandis que de 0 % à 3 % ne souhaitaient obtenir qu'une IRM. La modalité privilégiée pour ce qui est de l'imagerie thoracique consistait en la seule tenue d'une radiographie.

Conclusion : Notre sondage indique que les gynéco-oncologues ne souhaitent obtenir que peu de renseignements, outre les résultats de biopsie, dans le dossier d'orientation. La tenue d'une IRM n'est pas nécessaire dans le bilan de la plupart des patientes qui présentent une masse pelvienne ou un cancer de l'utérus.

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INTRODUCTION

The majority of women who develop gynaecologic malignancies do not initially present to gynaecologic oncologists. Although women with gynaecologic cancers

should be referred to gynaecologic oncology specialists for definitive management, the investigations these women undergo before referral are determined by non-subspecialists.

Investigations that may be ordered in the evaluation of women with suspected gynaecologic cancers can be extensive, and may include hematology, blood chemistry, and endocrine investigations, CT scans, MRIs, ultrasound scans, and sometimes positron emission tomography scans. These investigations are not necessarily required by gynaecologic oncologists before they begin definitive management. Because ovarian, endometrial, and vulvar cancer are typically staged surgically and cervical cancer is staged clinically, there is a limited role for multiple imaging procedures in asymptomatic patients.[1,2]

Extensive testing not only places a burden on resources, it also increases the time to definitive surgical treatment for women with endometrial cancer and ovarian masses.[3,4] The adverse effect of extensive wait times on rates of survival in women with endometrial cancer increases significantly if time from diagnosis to surgery is delayed by more than two weeks. This has been documented to be the case when preoperative CT scans and MRIs are performed before referral of patients with endometrial and ovarian cancer.[3–5]

Given the ad hoc pre-referral evaluation of women with confirmed or suspected gynaecologic malignancies, there is a need for clearer guidance for what gynaecologic oncologists actually require as part of the referral package when seeing a woman with a newly diagnosed or possible new gynaecologic cancer.

We summarize here the results of a survey of gynaecologic oncologist members of the Society of Gynecologic Oncology of Canada (GOC), conducted to identify what they consider to be necessary investigations before the referral of women with either a suspected gynaecologic cancer or a newly diagnosed confirmed gynaecologic cancer.

METHODS

A questionnaire based on common referral scenarios was compiled by members of the GOC Policy and Practice Guidelines Committee. The scenarios were intended to represent the spectrum of patient referrals, including women with vulvar, cervical, endometrial (low and high risk separately), and ovarian cancer, and examples of pelvic mass diagnoses.

The questionnaire was distributed via email on February 13, 2014, to all gynaecologic oncologists who are members of the GOC.

The questionnaire and responses are provided in the eTable.

RESULTS

The questionnaire was sent to the 121 gynaecologic oncologists who are members of the GOC, and 96 responded (a 79% response rate). There are presently 93 gynaecologic oncologists in practice in Canada; the response rate among these Canadian physicians was 72%, with 60% of the responses derived from gynaecologic oncologists in Ontario or Quebec.

For patients being referred for an asymptomatic low-risk endometrial cancer, 46% of respondents preferred no further investigations be performed before referral of the patient to a gynaecologic oncology practice. Thirty percent of gynaecologic oncologists requested that a chest X-ray report be included in the referral package, while only 4% requested an MRI.

For patients being referred for an asymptomatic high-grade serous endometrial cancer, 40% of gynaecologic oncologists did not want any further investigation by the referring physician, preferring to order any tests they needed at their primary hospitals. Forty-three percent of gynaecologic oncologists requested chest imaging, either chest X-ray or chest CT scan, while 42% preferred that a CT scan of the abdomen and pelvis be included in the referral package.

For a postmenopausal woman being referred for a 10 cm pelvic mass that appeared on ultrasound to be unilocular, only 2% requested that a pelvic MRI be included in the referral package, while 82% requested measurement of serum CA 125. A CT scan of the abdomen was requested by only 12% before referral.

For a 55-year-old woman being referred for a 10 cm pelvic mass that appeared on ultrasound to be cystic with septations, 91% of gynaecologic oncologists requested that measurement of serum CA 125 be included in the referral package; only 3% felt that such a patient required a pelvic MRI. Twenty-five percent of gynaecologic oncologists felt that a CT scan of the abdomen and pelvis should be performed before referral.

For a 55-year-old woman being referred with a 10 cm pelvic mass that appeared on ultrasound to be cystic with solid excrescences showing vascular flow, none of the gynaecologic oncologists felt that MRI should be

performed before referral; 89% felt that measurement of serum CA 125 should be performed before referral, and 46% requested a CT scan of the abdomen and pelvis be included in the referral package.

For a 55-year-old woman being referred with a 10 cm cystic pelvic mass that appeared on ultrasound to be solid with solid excrescences showing vascular flow, and with ultrasound evidence of ascites and peritoneal studding, only 1% of gynaecologic oncologists felt that a pelvic MRI should be performed before referral; 59% requested a CT scan of the abdomen and pelvis, and 78% requested measurement of serum CA 125 be included in the referral package.

For a 49-year-old woman being referred because of biopsy-proven cervical cancer, 56% of gynaecologic oncologists did not feel that any further investigations should be performed before referral, while 26% requested that an MRI of the pelvis be performed before referral.

For an 80-year-old woman being referred for a vulvar cancer, 50% of gynaecologic oncologists felt no further investigations were required before referral. The investigation most commonly requested by gynaecologic oncologists in the evaluation of women with vulvar cancer was a chest X-ray.

DISCUSSION

When a patient has a newly diagnosed gynaecologic malignancy or a lesion highly suspicious for malignancy, she must be referred to a gynaecologic oncologist for evaluation and planning of treatment. The referring physician should ideally make a timely referral while providing information to the gynaecologic oncologist that will help decision-making regarding surgery, chemotherapy, or radiation. Currently there are no standard documents indicating to the referring physicians what information should and should not be included in the referral package.

Referring physicians can order multiple blood and imaging tests, but these tests are often not needed by gynaecologic oncologists to make decisions about management. Waiting for these tests to be done may actually delay definitive treatment and thus adversely affect patient outcomes.

The most common gynaecologic malignancy is endometrial cancer, and most women with endometrial cancer present with a clinical stage I tumour. According to the FIGO the proper staging of endometrial cancer is surgical.[1,2] It has been well documented that additional tests such as CT scanning and MRI do not alter decisions about management in these patients.[4,6,8] Guidelines from both the SOGC and the American College of Obstetricians and Gynecologists state that CT scanning and MRI should not be routinely ordered in this patient population.[6] Several studies have found that these tests alter management of women with endometrial cancer in 4% to 8% of cases and frequently overestimate the extent of disease.[7–10] Additionally, cost-effectiveness studies have found that $17 622 in health care costs are required to change the management strategy in one patient.[10] Although most of this evidence pertains to women with endometrioid adenocarcinoma, body imaging alters management in only 11% of cases of serous and clear cell or high-grade uterine cancer and 13% of cases of sarcoma.[10] For this reason, gynaecologic oncologists request additional imaging tests infrequently.

The finding of a pelvic mass is also a common reason for referring a patient to a gynaecologic oncologist. We outlined three scenarios for referral of a patient with an ovarian mass, each mass having distinct characteristics ranging from mostly benign features to features of malignancy. Most gynaecologic oncologists stated that an assay of serum CA 125 should be included in the referral package, regardless of the characteristics of the mass on ultrasound; however, it should be noted that the patient described in the clinical scenario was postmenopausal.

Overwhelmingly, gynaecologic oncologists did not feel that an MRI result should be included in the referral package, nor was it their practice to order MRI in their centre when patients were referred. These responses are in keeping with the SOGC Clinical Practice Guideline recommendations, which state that "CT and MRI before subspecialty referral are unlikely to be beneficial."[11] The SOGC Guidelines also emphasize that transvaginal and abdominal ultrasound is recommended as the initial evaluation for an ovarian mass. A population-based study addressing multiple imaging tests ordered in the evaluation of ovarian masses has found a worrying delay in time to surgery for ovarian malignancies (by up to 79 days) when CT scanning and MRI are performed in addition to pelvic ultrasound;[3] this can have an adverse effect on survival outcomes on these patients. Additionally, the performance of MRI did not improve appropriate triage for women with malignant ovarian masses to gynaecologic oncologists.[3]

Patients referred to gynaecologic oncologists for cervical cancer are clinically staged according to FIGO staging;[2] however, the majority of gynaecologic oncologists stated that they relied on MRI to assist with treatment planning. Although MRI was required, the majority of gynaecologic

oncologists responded that they preferred to have this performed in their own facility and not in outside imaging facilities. This underscores the importance of having radiologists with appropriate experience in gynaecologic oncology cases.

Gynaecologic oncologists also preferred to order imaging tests in their own facilities for patients with vulvar malignancies, possibly to enhance direct communication with the radiologists and for the perceived reliability of reports.

Finally, it should be noted that the majority of gynaecologic oncologists relied on a chest X-ray rather than a CT scan of the chest when staging patients.

CONCLUSION

Generalist obstetrician-gynaecologists and family physicians have the important role of identifying women who either have a gynaecologic malignancy or are at high risk of developing one. Triaging them to a gynaecologic oncologist in timely fashion is necessary in order to achieve the best survival outcomes possible. Referral packages should contain information that will aid the gynaecologic oncologists to make treatment decisions at the consultation appointment. However, tests that do not assist in decision-making should be avoided. Referral centres should provide clear information for referring physicians about the required testing in order to provide seamless transfer of care.

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eTable. Questionnaire for Gynaecologic Oncologists

Case #1 - For an asymptomatic patient who is being sent to you with a grade 2 endometrial cancer…

What tests would you like the referring physician to provide you prior to referral?

Response	Percentage
Chest X-Ray	30%
CT Chest	7%
CT Abdomen	21%
MRI Pelvis	4%
None. I prefer to do all investigations at my center	46%
Other	22%
Total Responses	

Case #2 - For an asymptomatic patient being sent to you with a high grade serous cancer…

What tests would you like the referring physician to provide you prior to the referral?

Response	Percentage
Chest X-Ray	22%
CT Chest	21%
CT Abdomen	42%
MRI Pelvis	4%
None. I prefer to do all investigations at my center	40%
Other	21%
Total Responses	

Case #3 - For a 55 year old patient being referred to you with a 10 cm unilocular mass on ultrasound…

What additional tests would you like the referring physician to provide?

Response	Percentage
Pelvic MRI	2%
CT Abdomen and Pelvis	11%
Ca-125	82%
None. I prefer to do all investigations at my center	14%
Other	13%

Case #4 - For a 55 year old patient being referred to you with a 10 cm Cystic mass with septations…

What additional tests would you like the referring physician to provide?

Response	Percentage
Pelvic MRI	3%
CT Abdomen and Pelvis	25%
Ca-125	91%
None. I prefer to do all investigations at my center	9%
Other	9%

Case #5 - For a 55 year old patient being referred to you with a 10 cm cystic mass with solid excrescences with vascular flow…

What additional tests would you like the referring physician to provide?

Response	Percentage
Pelvic MRI	0%
CT Abdomen and Pelvis	46%
Ca-125	89%
None. I prefer to do all investigations at my centre	12%
Other	8%

eTable. ***Continued***

Case #6 - For a 55 year old patient being referred to you with Cystic mass with Solid excresences with Vascular flow on the left ovary measuring 10 cm, ascites and some peritoneal thickening suggestive of peritoneal implants…

What additional tests would you like the referring physician to provide?

Response	Percentage
Pelvic MRI	1%
CT Abdomen and Pelvis	59%
Ca-125	78%
None. I prefer to do all investigations at my centre	15%
Other	18%

Case #7 - For a 49 year old patient being referred to you with a cervical cancer…

What additional tests would you like the referring physician to provide?

Response	Percentage
Pelvic MRI	26%
CT Abdomen and Pelvis	17%
Ca-125	1%
None. I prefer to do all investigations at my centre	56%
Other	20%

What is your usual practice to order on patients with a Stage IIIB cervical cancer?

Response	Percentage
Chest X-Ray	34%
CT Chest	27%
CT Abdomen	55%
MRI Pelvis	64%
PET Scan	51%
Other	14%

Case #8 - For an 83 year old patient being referred to you with a vulvar cancer…

What additional tests would you like the referring physician to provide?

Response	Percentage
Chest X-Ray	35%
CT Abdomen and Pelvis	23%
None. I prefer to do all investigations at my centre	50%
Other	10%

What is your usual practice to order on a patient with a 2 cm lateral vulvar cancer prior to surgery?

Response	Percentage
Chest X-Ray	52%
CT Abdomen and Pelvis	38%
No further tests	27%
Other	16%

What is your usual practice to order on a patient with a 6 cm vulvar cancer which is lateral?

Response	Percentage
Chest X-Ray	58%
CT Abdomen and Pelvis	64%
No further tests	9%
Other	27%