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MD Program, Year 4

Referral Patterns for Gynecologic Oncology Consultation

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Delays in evaluation and treatment may result in worsened outcomes for women with gynecologic cancers. However, care pathways for patients with suspected gynecologic cancers have not been well-described. This study aims to identify delays in access to gynecologic oncology (GO) consultation through a detailed characterization of patients' interactions with the healthcare system prior to GO evaluation. Medical records of 50 consecutive patients were reviewed from each of 6 academic cancer centers beginning in January 2018. Clinical and demographic characteristics were abstracted with dates of: first evaluation, testing ordered, testing resulted, diagnosis, referral, and treatment. Degree, specialty, and clinic ZIP code were collected from providers referring to GO, as well as up to two providers previously evaluating the patient for the same complaint. Primary outcomes were 1) total time in healthcare for a complaint prior to GO referral; 2) first evaluation by referrer #1 to GO referral; and 3) GO referral to treatment start. Chi-square and Kruskal-Wallis tests were used for groupwise comparisons of categorical and continuous variables, respectively. 300 cases were analyzed. Mean age was 57.8 years (SD 14.7); patients were predominantly White (77.5%), or Black (17.2%); 89.1% were non-Hispanic. Primary disease sites were uterine corpus (45.8%), ovary (31%), cervix (12.9%) and vulva (5.5%). Final pathology was malignant in 61.9% of cases, borderline/hyperplastic/dysplastic in 13.5%, and benign/unknown in 24.5%. 5 patients (1.6%) were evaluated by 3 providers before GO referral; 74 (24%) by 2 providers, and 227 (74%) by 1 provider. GO referral was commonly initiated by OB/GYN (71%), family medicine (9%) and internal medicine (6%). Mean time from first healthcare encounter to GO evaluation was 50.6 days (SD=65); time from first evaluation by referrer #1 to GO referral was 26.8 days (SD=46.8). The longest average interval identified was between first evaluation and diagnostic testing by referrer #1; mean = 21.8 days, (SD=48.4). Mean time from GO referral to treatment initiation was 20.7 days (SD=27.5). Mean distance from residence to GO was 41.0 miles (SD=53.7),and was >50mi in 27.8% of all cases. Patients evaluated by 3 providers spent substantially more time in the healthcare system than those evaluated by 1 or 2 providers prior to GO referral (mean 91.0 vs 49.6 and 50.8 days, respectively; $p<0.005$). Evaluation in an Emergency Department was associated with a substantially quicker GO referral (16.7 vs 34.7 days, $p<0.005$). Time from GO referral to initiation of treatment was longer for patients residing >50 miles compared to patients residing <50 miles from the nearest GO (33.4 vs 25.7 days, respectively; $p=0.03$). We identified two areas amenable to intervention to improve access to GO consultation. First, patients residing >50 miles from the nearest GO experienced delays in treatment. Interventions, including telemedicine, should be developed to address this geographic disparity in care. Second, there was substantial variation in time between patients' initial evaluation and diagnostic testing by the referring provider. Educational and systems interventions are needed to ensure that signs and symptoms of gynecologic cancers are evaluated appropriately.

Supported by:

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