

HEALTH CARE RESOURCE AND COST IMPLICATIONS OF INTEGRATION OF MOLECULAR CLASSIFICATION IN THE MANAGEMENT OF ENDOMETRIAL CANCER

E-Poster Viewing

ORAL FEATURED POSTERS

Lecture Title:

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Objectives: Increasing incidence and morbidity of endometrial cancer (EC) has resulted in high systemic cost burdens associated with management. Molecular classification is now being integrated into routine pathologic reporting, providing objective biologically-relevant data to direct care. We assessed the cost implications of this integration in a modern cohort of women with ECs.

Methods: 994 women diagnosed with EC across Canada (2016) underwent retrospective molecular classification enabling us to determine their eligibility for current molecular stratification trials and 2020 ESMO/ESTRO/ESP risk group assignment and treatment recommendations. We then calculated cost differences based on molecular subtype/ProMisE-directed change in surgical management, adjuvant therapy, clinic visits, pathology testing, and genetic counseling.

Results: Total costs saved, even after correcting for cost of molecular testing for all 994 individuals (\$450-575 CAD/test) were \$570,744-\$747,042 CAD or \$574-\$752 CAD per capita. If we test MMR and p53 IHC for all patients but perform POLE sequencing only in women where treatment would be altered (e.g., NOT testing POLE in Stage IA Grade 1/2 endometrioid ECs who are usually untreated and stage III/IV ECs where ESMO/ESTRO/ESP recommendations are currently unchanged for POLEmut ECs) total costs saved increases to \$720,294-\$958,842 or \$725-\$965/capita. If costs of additional treatment directed by ProMisE are added, such as chemotherapy +/- radiation directed secondary to unveiling high risk molecular subtype, this would be expected to improve outcomes but at an additional cost of \$280,908-\$826,719 or \$282-\$832/capita.

Conclusions: Molecular classification may tailor treatment with cost savings, while providing an opportunity to improve outcomes at reasonable cost for women with endometrial carcinoma.