



Dr. Stephanie Date PhD Pharmacology

Biography

Dr. Stephanie Date was born and raised in Barbados, where she graduated from the University of The West Indies (UWI), Cave Hill, with a Bachelor of Medicine Bachelor of Surgery (MBBS) degree in 2015. In 2020, Stephanie upgraded from the MPhil to the PhD Pharmacology program at Cave Hill, and her research surrounds health disparities among Afro-Caribbean women. She is currently investigating a common anti-diabetic drug (Metformin) and its possible anti-neoplastic properties among a cohort of Barbadian, postmenopausal women with endometrial cancer. Continuing, she enjoys serving as Senior Fellow of The Yale Transdisciplinary Collaborative Center for Health Disparities Research, working alongside The Eastern Caribbean Health Outcomes Research Network (ECHORN) and is the Acting Medical Coordinator of the Barbados Cancer Society's Breast Screening Programme Sub-Committee.

Barbadian Women, Metformin and Endometrial Cancer: Project Updates

PhD Pharmacology: Dr. Stephanie Date

Abstract

Epidemiological data were collected from Barbadian women diagnosed with Endometrial cancer (EC), with and without exposure to the anti-diabetic agent, Metformin. All recorded primary cases of EC diagnosed between January 1st 2008, and December 31st, 2017 were analysed. Age-specific incidence, and crude mortality rates were calculated. Descriptive statistics characterized demographics, risk factors, prescription data and histopathology. Log-rank tests assessed simple group differences by EC type. Survival analysis based on tumour type was plotted using Kaplan-Meier curves. Serum and EC tissue samples from eligible women diagnosed with EC in 2020 were collected for future hormonal and biomarker analysis.

There were 270 recorded cases of EC, averaging 66 (8.8) years old, with parity of 3.60 (2.3). Cases were postmenopausal with 95% experiencing postmenopausal bleeding. There were 42% type 1, 58% type 2 tumours. Weak evidence suggests the latter imparted worse survival (log rank test = 0.02). There was no statistically important difference in survival between women with and without a history of metformin use.

Estimated crude incidence rate was 18.64 per 100,000 women. Crude mortality rate from EC between January 1st, 2008 and December 31st, 2019 was 27%.

ELISA testing was performed on all serum samples collected and analysis is ongoing. Tissue microarrays were created and will be stained and scanned for biomarker analysis.