

# Patterns of Survivorship Care Of Cervical Cancer Patients With Or Without HIV Infection In Botswana 2015-2022

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## BACKGROUND:

- Between 2015-2022, women in Botswana with cervical cancer (stages IA-IVB), with or without HIV, were prospectively enrolled in an observational cohort study.
- Here, we present patterns of survivorship care of for those patients who were treated with radiation therapy by HIV status and prospectively evaluate factors associated with retention in survivorship care in this population.

## METHODS:

- Of the 1,405 cervical cancer patients, 964 (68.6%) were treated with radiation therapy.
- The Botswana national cervical cancer guidelines recommend survivorship care every 6 months for the first 2 years and annually for the subsequent 3 years following the end of treatment.
- Factors associated with retention in survivorship care were analyzed using logistic regression modeling.

**Table 1. Demographic and clinical characteristics of cervical cancer patients who were treated with radiation therapy and eligible for the first 2 years of survivorship care**

Characteristic	Overall n=852 (100%)
<b>Age (years)</b>	48 (41.6-59.6)
<b>HIV status</b>	
Negative	276 (32.4%)
Positive	566 (66.4%)
<b>Disease stage</b>	
I (IA, IA1, IA2)	6 (0.7%)
I (IB, IB1, IB2, IB3)	78 (9.2%)
II (IIA, IIB)	309 (36.3%)
III (IIIA, IIIB, IIIC1)	264 (31%)
IV (IVA, IVB)	151 (17.7%)
<b>CD4 (cells/<math>\mu</math>L)</b>	443 (280-653)
<b>Detectable viral load</b>	35 (6.2%)
<b>Treatment</b>	
Radiation therapy	338 (39.7%)
Chemoradiation	471 (55.3%)
Surgery + Radiation therapy	24 (2.8%)
Surgery + Chemoradiation	19 (2.2%)
<b>Treatment duration (days)</b>	44 (35-51)

**Table 2. Factors associated with adherence to first 2-year survivorship care of cervical cancer patients who were treated with radiation therapy and eligible for the first 2 years of survivorship care: MVA**

Characteristic	OR (95% CI)	p
<b>Age (years)</b>		
21-39	1 (ref)	--
40-59	0.95 (0.51-1.83)	0.9
60+	0.71 (0.32-1.6)	0.4
<b>HIV status</b>		
Negative	1 (ref)	--
Positive	0.67 (0.39-1.16)	0.2
<b>Disease stage</b>		
I-II	1 (ref)	--
III-IV	0.48 (0.28-0.82)	<b>0.008</b>
<b>Treatment type</b>		
Curative	1 (ref)	--
Definitive	0.58 (0.35-0.97)	<b>0.04</b>
Palliative	0.23 (0.06-0.67)	<b>0.01</b>

## RESULTS:

- Of the 964 patients who were treated with radiation therapy, 852 (88.4%) completed treatment before 1/1/22 and should have at least 1 follow-up visit by the time of analysis for the first 2 years.
- For the first 2 years of survivorship care, 201/852 (23.6%) followed up every 6 months for the first 2 years.
- For the subsequent 3 years of survivorship care, 722/964 (74.9%) completed treatment before 1/1/20 and should have at least 1 follow-up visit by the time of analysis.
- Of those, 101/722 (14%) followed up every year for the subsequent 3 years.

## CONCLUSIONS:

- Majority of patients with cervical cancer in Botswana are not adhering to the recommended survivorship care plan, especially those with advanced stage disease.
- Future interventions should aim to improve patient adherence for all cervical cancer patients.

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