African Women Awareness of CANcer (AWACAN) Network e-Newsletter (1)

Compiled by Chukwudi Nnaji, Linda Mbuthini and Jennifer Moodley

Cancer Research Initiative, University of Cape Town

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AWACAN presents a selection of research articles and publications related to early cancer diagnosis and detection in Africa. This is the first edition of our e-Newsletter, which we plan to update and disseminate periodically with contributions from our AWACAN network members. Future editions will include relevant current research and related activities of members.

In this maiden edition, we highlight recent (published within the past one year) research evidence, news and other publications related to cancer screening and diagnostic services in general. This edition also features how these and broader oncology services are being affected by the COVID-19 pandemic in African countries. We hope that insights from these pieces of evidence will help guide our research and other activities related to cancer awareness, early diagnosis and control in our various settings. This and subsequent editions of this evidence summary will be published on the **AWACAN website**, as well as on the Twitter page of the Cancer Research Initiative (CRI) - **@UctCri**.

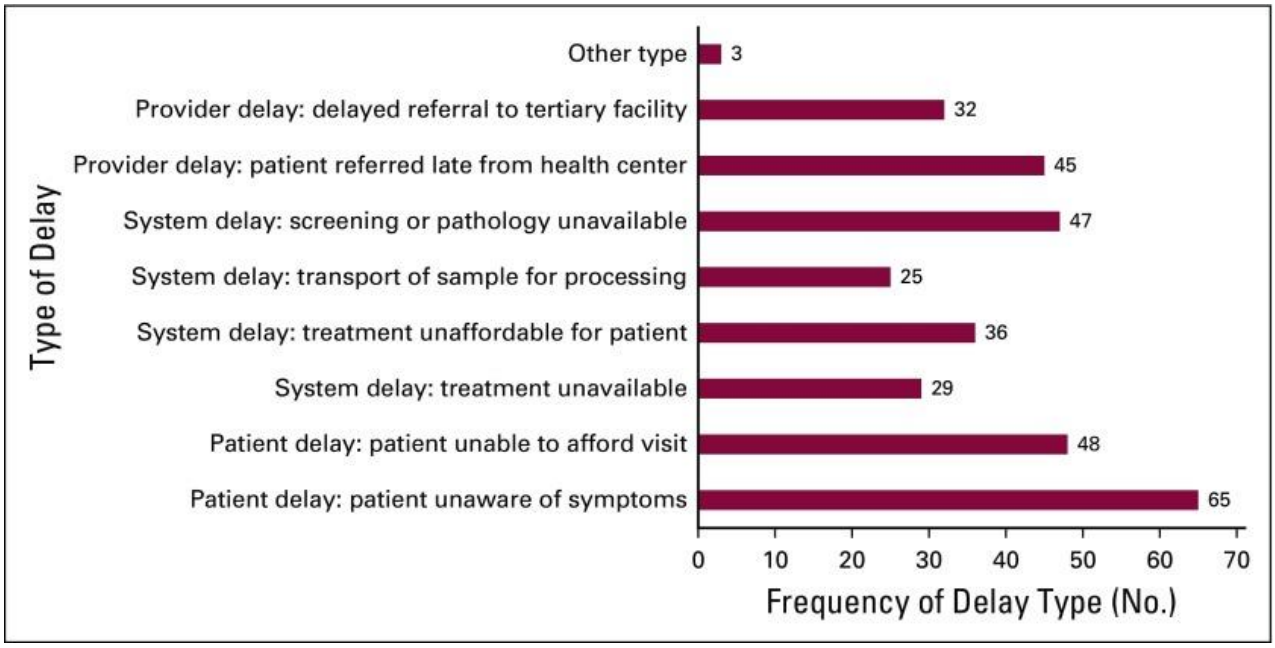
***A few articles on pathways to cancer diagnosis and care in African countries*:**

Martin et al. Cancer Control at the District Hospital Level in Sub-Saharan Africa: An Educational and Resource Needs Assessment of General Practitioners. Journal of Global Oncology. DOI:10.1200/JGO.18.00126

Country context: Rwanda

This cross-sectional survey assessed gaps in cancer-focused knowledge, skills, and resources, as well as delays in the referral process among 73 young general practioners (GPs) in Rwandan district hospitals. Most respondents were aged 25-29 years and had been practicing between 3 and 12 months. Significant gaps in cancer knowledge and physical exam skills were identified: 88% of the respondents were comfortable performing breast exams, but only 15% of them reported confidence in performing pelvic exams. The main educational resources requested by respondents (81%) were algorithms to guide clinical decision-making. Gaps in resource availability were identified, with only 39% of respondents reporting breast

ultrasound facilities availability and 5.8% reporting core needle biopsy availability in their hospitals. Radiology and pathology resources were limited, with 71% of the surveyed GPs reporting no availability of pathology services at the district hospital level. The figure below shows the distribution of identified causes of cancer diagnostic and treatment delays:



Rayne et al. Delay to diagnosis and breast cancer stage in an urban South African breast clinic. South African Medical Journal. DOI: 10.7196/SAMJ.2019.v109i3.13283

Country context: South Africa

To identify where patient-related socioeconomic delays occur and how these relate to stage at presentation, the authors conducted a cross-sectional survey of women with a new breast cancer diagnosis. A total of 252 women with newly diagnosed stage 1 – 3 breast cancer completed the questionnaire with a response rate of 71.6%. The women's median age was 55 years, with a majority of them aged >45 years. Stage at presentation was stage 1 in 15.5% of patients, stage 2 in 28.5% and stage 3 in 56.0%. Of note is that this study did not include women with stage 4 breast cancer. Almost a third of the patients (30.4%) presented with a T4 tumour (6.1% inflammatory). Total delay in presenting to the breast clinic was significantly associated with locally advanced stage at presentation. Average delay differed between early stage (1.5 months) and locally advanced (2.5 months), and most delay occurred between acknowledging a breast symptom and seeking care. The least delay was between attending a health service and presenting at the open-access breast clinic, with 75.0% presenting within 1 month. Factors associated with delay were difficulties with transport, low level of education and fear of missing appointments due to work. The charts below illustrate the delays in presentation among patients with early and locally advanced disease:

Carpenter et al. Factors Influencing Diagnostic Delays of Pediatric Cancers in Botswana. Pediatric Blood Cancer. DOI: 10.1002/pbc.28182

Country context: Botswana

This paper reports the findings of a retrospective cohort study of children diagnosed with cancer at a hospital utilizing the Botswana Pediatric Oncology Database. It found that the median time to diagnosis was 10.7 weeks, median pretreatment center delay was 9.6 weeks, and median pathology turnaround time was 3 weeks. Longer time to diagnosis was significantly correlated with presence of metastasis at diagnosis. Age, sex, distance to a treatment center, HIV status, cancer type, and outcome were not significantly associated with diagnostic delay. The following table summarizes the results of the time to diagnosis in weeks with respect to demographic and clinical characteristics:

Patient characteristics	No. of patients (%)	Time to diagnosis Mean (SD)	*P*
Age			
<13 years old	60 (87)	16.3 (19.3)	0.39
>13 years old	9 (13)	22.2 (19.2)	
Sex			
Male	38 (55)	15.1 (15.2)	0.52
Female	31 (45)	19.4 (23.3)	
Distance to treatment center			
Gaborone area	14 (20)	19.4 (24.6)	0.60
Other	55 (80)	16.4 (17.9)	
HIV Status			
Positive	2 (3)	18.4 (3.3)	0.92
Negative	67 (97)	17.0 (19.6)	
Type of cancer diagnosis			
Leuk/lymph	22 (32)	12.7 (17.2)	0.09
CNS/Rb	11 (16)	20.0 (16.8)	
Non-CNS ST	36 (52)	18.8 (21.1)	
Outcome			
Pall care/death	25 (36)	16.1 (18.7)	0.76
Other	44 (64)	17.6 (19.8)	
[a]Presence of metastatic disease ($n = 47$)			<0.001
Yes	17 (36)	30.5 (26.6)	
No	30 (64)	12.6 (11.1)	

[a]Leukemia and lymphoma excluded.

Scheel et al. Breast cancer early detection and diagnostic capacity in Uganda. ACS Journals. DOI: https://doi.org/10.1002/cncr.32890

Country context: Uganda

This study aimed to identify systematic gaps that prevent the timely detection of breast cancer in Uganda. The authors performed a situational analysis of the breast health care system using methods developed by the Breast Health Global Initiative. They found that

diagnostic delays were attributable to factors such as: deficits in the recognition of breast cancer signs and symptoms, the underuse of clinical breast examination as a diagnostic and/or screening tool, the centralization of diagnostic tests (radiology and pathology), reliance on excisional biopsies rather than needle biopsies, and a lack of trained professionals and knowledge of the referral system all contribute to significant health system delays.

COVID-19 and Cancer

The Cancer Research Initiative (CRI) presents a selection of emerging research articles and clinical practice guidelines related to cancer and COVID-19, with a summary of their key findings/recommendations. The updates are published weekly, with the latest being the 12th edition. All editions can be accessed via the ***CRI website*****.**

Consolata Kirigia. Cervical cancer screening during the COVID-19 Crisis: Africa view point. Ecancer News. 12 May 2020.

Country context: Africa

While the COVID-19 crisis continues to cause unprecedented health and economic burden, this news article outlines the various ways in which the pandemic is constraining cervical cancer screening in African countries. It provides a guide on continued cervical cancer screening services considering local health policies in sub-Saharan Africa and other low resource contexts.

Kugbey et al. COVID-19 and its ramifications for cancer patients in low-resource settings: Ghana as a case study. Ecancer Medical Science. Doi: 10.3332/ecancer.2020.ed99

Country Context: Ghana

This paper highlights the impact of the COVID-19 pandemic on healthcare, including cancer care, in low- and middle-income countries (LMICs) from a Ghanaian perspective. It describes how cancer patients are likely to be affected in three key ways: access to healthcare, increased financial vulnerability and increased mental health burden as a consequence of strict measures being implemented to contain the virus in Ghana, including partial lockdowns and social distancing. Some cultural beliefs related to COVID-19 and their influence on the health, survival and wellbeing of cancer patients were also discussed. Measures by the government to lessen the burden on citizens and health workers are highlighted, with recommendations for improvement in cancer care in Ghana and other LMICs during this pandemic.