

Two patients with suspected cancer presenting to rural and peri-urban clinics in Botswana

Neo Tapela, MD
Scott Dryden-Peterson, MD



BOTSOGO

BOTSWANA ONCOLOGY
GLOBAL OUTREACH

Continuing Medical Education Announcement

Harvard Medical School

RSS 3081: Monthly BOTSOGO Tumor Board; 2017-2018 Academic Year

Today's Objectives:

- Describe the need for timely cancer case presentation and referral to treatment
- Formulate a multi-disciplinary plan for the care of common and complex oncologic cases
- Adopt successful, sustainable strategies to mitigate barriers to quality cancer care common in resource constrained environments

Target Audience:

Oncologists, internists, surgeons, radiation oncologists, infectious disease specialists, nurses, physicists, therapists, technicians, research staff, administrators, policy makers.



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- You can do this at your convenience on your personal or work computer by navigating to www.botsogo.org
 - Click “What We Do”
 - Click “Tumor Board”
 - Click the link under the section “Continuing Education Credits,” and complete and submit the survey
- Or follow the link that was emailed to our MGH BOTSOGO email list: www.tinyurl.com/tumourboard



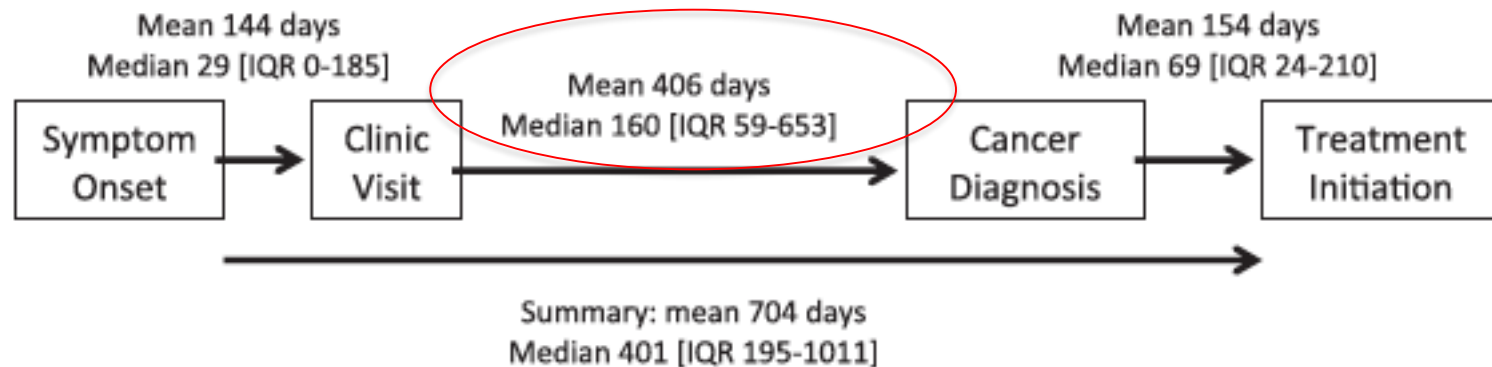
Background: Global

- Over 72% deaths due to cancer are in LMICs;
- For a given cancer, survival is poor in LMICs;
- Delayed diagnosis and treatment are a major contributor poor survival;
- Only 20%-50% breast cancer patients in LMICs are diagnosed in earlier stages, compared with 70% in HICs. (Unger-Saldaña, World J Clin Oncol 2014)



Background: Botswana

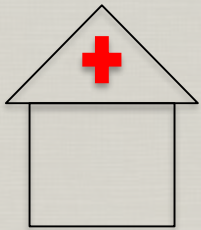
- BNCR: 50% cervical and 77% breast cancers are diagnosed in stage III or IV
- Brown et al 2016:
 - Median time from symptom onset to initial clinic visit = 1 mo
 - Median time from symptom onset to oncology care = 13.3 mo
 - HIV made no difference



Potlako Study Overview

Title: Hurrying up to save lives - An innovative multi-component programmatic intervention for timely cancer diagnosis in Botswana

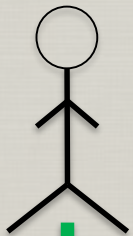
Aim: To implement and evaluate a multicomponent intervention intended to diagnose cancers early



Training

Referral algorithm

Coordination: weekly support calls, scheduling, path follow up



Coordination: calls after every visit, SMS reminders, transport support

1st visit
(suspected cancer)

Diagnosis
(cancer vs not)*

*or death, LTFU

Potlako Intervention:

1. Primary provider education/support

- Single-day session focused on recognizing early cancer symptoms and diagnostic approach
- Nurses/doctors from all clinics/health posts/hospital in April 2016 and Feb 2017
- Substantial improvement in cancer knowledge and self-reported confidence in managing patients
- Weekly support calls or visits from Potlako team



Potlako Intervention:

2. Navigational support to patients and clinicians

- Patients enrolled in tracking system
- Called after each appointment and booking assistance for investigations, SMS reminders
- Follow up pathology results
- Communication to oncologists/surgeons/other specialists for challenging cases

3. Financial support for transport to visits



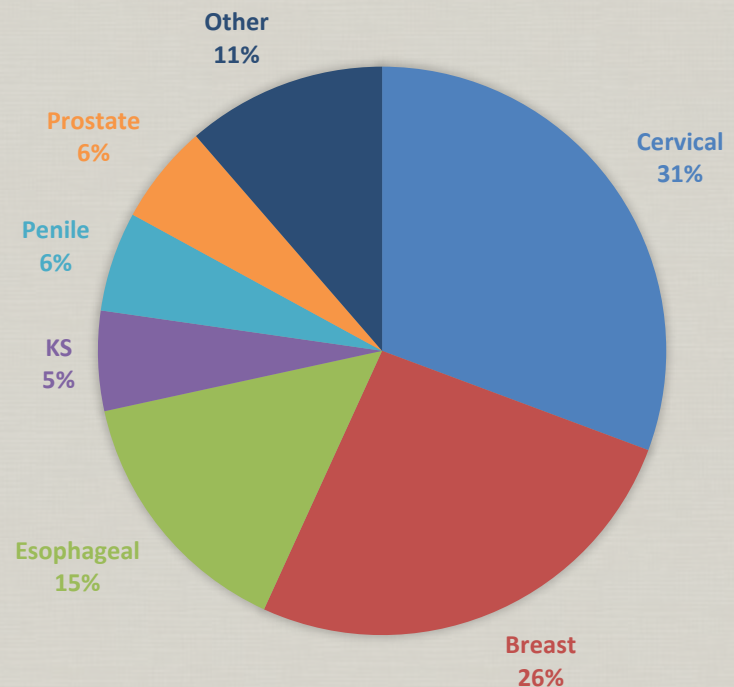
Progress so far

2 trainings held (259 trained,
100% facilities in KE)

501 patients enrolled and
assisted

- 74% female, 28% HIV+ (14% missing values)
- 77% ECOG 0 or 1 (10% missing)
- 76% pain score 0-2 out of 5 (7% missing)
- 16% (82) died, median f/u 6 months
- 121 cancers (97 confirmed, 24 probable)

CANCER TYPES (N=121)



5 abstracts, 1 manuscript

71yoM HIV- with 2cm breast lump:

71yo farmer

- No formal schooling
- Previously worked in underground gold mine for many years
- No tobacco or alcohol use
- No family history of cancer
- Married, has 7 children
- Lives in an electrified home with 11 family members
- Makes 1000-2500 BWP/mo
- Utilizes traditional healers routinely



71yo M HIV- with 2cm breast lump:

Painless lump

- First noticed in Dec 2016, eval in non-Kweneng East clinic
- Seen at Molepolole primary clinic in May 2017, by Potlako trained FNP
- Referred to SLH within 1wk for U/S; Potlako facilitated booking of scan/CXR

U/S findings: Complex cystic mass noted

- FNA done next day
- Patient received results 2wks later, but did not understand them or whether it was important
- Potlako facilitated booking of MDT visit



71yoM HIV- with 2cm breast lump:

Evaluated at breast PMH MDT, June 2017

- Biopsy done and results available 2wks later
- Confirmed infiltrating ductal carcinoma, stage IIB (T2, N1)
- Treatment plan developed, referred for neoadjuvant

PMH Oncology

- Missed booked appointment, no money for transport
- Potlako re-booked, forwarded transport money
- Seen but needed to repeat labs (now old)
- Started neoadjuvant chemo (?AC) in July



44yoF HIV+ with vaginal bleeding and pain:

44yo government employee

- Single, mother of two
- Lives in Molepolole
- Income 1000-2500 BWP/mo
- No tobacco or alcohol use
- No family history of cancer
- Diagnosed with HIV in 2013, CD4 nadir 142 but no prior AIDS events
- Started ART (TDF/FTC/EFV) in 2013; current CD4 320, HIV VL <400



44yoF HIV+ with vaginal bleeding and pain:

Symptoms started in 2015

- Post-coital bleeding
- Lower abdominal pain

Early evaluation (per patient report) at a clinic in Molepolole

- Treatment for STI, several times
- 'Normal' pap smear

Self-referred to SLH with progressive bleeding,
Aug 2016

- Admitted to FSW, enrolled in Potlako at this time
- Abnormal cervix on exam



44yoF HIV+ with vaginal bleeding and pain:

Biopsy performed by SLH GYN (early Aug)

- Returned at 2, 3, and 4 weeks to get result (resulted at 10d, but not noted by clinical staff)
- Confirmed poorly differentiated SCC of cervix
- Potlako team informed patient and clinician that results were out; arranged for U/S
- Seen in GYN MDT at PMH (mid Sept)
- Staged IIB cervical cancer
- Referred for chemoRT



44yoF HIV+ with vaginal bleeding and pain:

Progressive fatigue and pain

- Guarantee form received mid-Dec
- Referred for chemoradiation

Chemoradiation at GPH

- EBRT: 23 fractions of 2 Gy (total 46 Gy)
- Brachy: 4 fractions of 7 Gy (total 28 Gy)
- Almost complete response



Discussion:

Ideas for addressing *persistent and large challenges*:

- Majority of cancer suspects are only enrolled in Potlako at SLH or after substantial delay
- Substantial number of cancer suspects/cases refuse work-up and treatment
- Clinic cancellations at all levels (diagnostic procedures, specialist visits, MDTs, oncology) substantially delay eval
- Limited access to specialized areas: urology, ENT, thoracic, hepatobiliary
- Difficult to predict who will need transport support until visit already missed and delay happened
- Outages of reagents and equipment: PSA, mammography, scopes, clips



Summary:

- Patients face significant challenges navigating the health system for cancer-related evaluation and care (socioeconomic, health system limitations)
- Potlako, and other developments (e.g. pathology turn around, MDTs) have made some improvements
- Challenges and questions remain: e.g. prostate cancer diagnostic work up, GI and Head and Neck cancers
- Potlako enrollment planned for 1 more year. Interim analysis to be shared by Dec





Additional Summary/Conclusions from Tumor Board discussion

Case #1 (breast):

- Diagnostic evaluation a 'success' and clear impact of Potlako intervention
- Concern expressed about comprehensiveness of staging (patient determined to be metastatic but basis not known) and possibility of non-cancerous reasons for abnormalities seen
- Tamoxifen would be key part of treatment for metastatic, in setting of unknown/delayed knowledge ER status, advised use as vast majority of male breast cancers ER+
- Local control with radiation, hormone, surgery will be important even in met disease

Case # 2 (cervical):

- Knowledge of accessing results in IPMS limited, need to use name/Omang rather than PA/PM numbers to have best success
- Clinicians need to be informed that TOT is ~2wks, and improved
- Bulk of delay in guarantee/booking RT process

Additional notes:

More in-depth discussion of Potlako program (successes and challenges faced) will be of interest to our Tumor Board community, including discussion of additional cases with different diagnoses.

