KENYA ASSOCIATION OF PHYSICIANS

14th Annual Scientific Conference

Travellers Beach Hotel – Mombasa
25th – 27th MARCH 2010

TOPIC:
GOLD STAR NETWORK – 5 YEARS
EXPERIENCE AT QUALITY HIV/AIDS CARE
BY PRIVATE PROVIDERS
COAST PROVINCE - MOMBASA

SPEAKER:
Dr. G.P. YOSSA - MB-CHB MAKERERE
Chairman GSN – Coast Division

WORKPLACE:
• Aga Khan Hospital, Mombasa – GMC
• Bomu Medical Centre
• Skin Centre – Pandya Memorial Hospital
[APHIA II COAST – USAID PROJECT]
Introduction

- It is estimated 1.4 million people living with the virus
- 392,000 (2008) urgently in need of therapy
- 212,000 (54%) on A.R.T – (end June 2008)
- 180,000 (46%) unmet need for A.R.T
- Coast Province: HIV prevalence – 8.1% - 20,612 on A.R.T
- Leading Institution – Bomu Medical Centre – 7,323 on A.R.T (end December 2009)

- HIV/AIDS and Health work force crisis (B- Marshal etc. Tropical Medicine, Internal Health – April 2005)
- In scaling A.R.T financing, access has become less a constraint than human resources
- Chronic deficiencies in training, skill mix, retention – have a left health services with a narrow margin to cope with new challenges – (Aiken & Kemp – Huddart 2003)
Introduction

- The goal to achieve universal access to HIV care by 2010 was achievable by available motivated health workers.
- Roles: -
  - F.H.I – Operational
  - KMA – Human resources, training, CPD, Mentorship, accreditation and monitoring
GSN: Training – Preparatory Phase

- A preliminary evaluation by a rapid appraisal 2005-2006 established large training gaps and dire need for CPD and mentorship by the private providers (Dr. Rehana International Consultant & Dr. G.P. Yossa, Mombasa)

PAPER:
- **Objective** - Evaluation to date, a clinical perspective on Project Goal (2005-2010)

“To expand access to Comprehensive Quality HIV care and ART services in private sector based on the franchised module and delivered by approved providers and technical support partners”

- **Methods & Materials** – Analysis of data and reports from monthly technical committee deliberations, feedback by participants (Training & CPD), survey on ART use 2007.
• **Results** - Preparatory phase – In depth interviews from a Structured Questionnaire.

• Sample distribution

<table>
<thead>
<tr>
<th>CITY</th>
<th>PHYSICIANS</th>
<th>PAEDIATRICIANS</th>
<th>OBS/GYN</th>
<th>GP’s</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAIROBI</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>MOMBASA</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>NAKURU</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>21</td>
</tr>
</tbody>
</table>

• Findings –:
  - Skeletal office staff / non-counsellors
  - Large training gaps – need for CPD and Mentorship
Formal trainings

• Eleven modules (KMA)

• Residential total 5 days

• Theory practicum – CPGH & Bomu Medical Centre

• Pre/post test written exams

• Minimum 40 hours contact time

Participants / Providers – Majority from Coast Province few from Nairobi
- Total number of participant/providers 146
  - Doctors: 59 specialists (14) and non-specialists (45)
  - Other health care workers: 87

Specialists:
- Physicians: 3
- Paediatricians: 6
- OBS/GYN surgeon: 1
- Pathologist: 1
- Dermatologist: 1

Non-specialists:
- GP: 28
- Medical Officers: 17

Other health care workers:
- Laboratory Technologist: 4
- Clinical Officers: 58
- Pharmacists: 11
- Nurses & Councillors: 14

GSN Clients by December 2009: 1,639 enrolled, 916 on treatment

CPD monthly: 2-3 hour session well attended. Best attended is the SSAT (St Steven AIDS Trust) – Professor McBower and team from UK
Total number of clients 98
Age range 5 - 65
8 respondents – 1 Physician/Assistant
   4 Paediatricians
   2 GP's

Standard EFV based combinations
EFV/TDF/FTC = 20
EFV/3TC/AZT = 24
EFV/3TC/DDI = 1
EFV/3TC/D4T = 12
TOTAL 57
Similarly Nevirapine based combinations = 10

PI based combinations = 10

Less favourable combinations EFV/D Drugs = 4
  Dual therapy (FTC/TDF/AZT/DDI)

Complex regimens PI based = 5
  Ritonavir/SAQ/Abacavir
  AZT/Abacavir/SAQ/Ritonavir
  Kaletra/Videx/Zerit/EFV
  Kaletra/Combivir/Truvada
Topics/Demonstrations Favoured at CPD/Practicum

- Hepatopathies – Toxicity
- Co-morbidities
  - TB, Hepatitis B/C coinfections
- Kaposis Sarcoma
- Metabolic complications
- Genital ulcers disease
- PMTCT/Paediatric care
- CNS-HIV
- Medical Jurisprudence
DISCUSSIONS

First trainings in Coast Province undertaken by Action Aid/MEDS - with same facilitators now with Gold Star Networks

Trainings by KMA HIV/AIDS committee from 2002 not sustained.

GSN offered opportunity for this sustained level of training.

**Trainings**

**Specialists**

Paediatricians form a lead team among specialists doctors. Physicians are invaluable especially in mentorship. Specialists generally under represented.

Modules could be modified for weekend trainings to keep abreast with this dynamic field of care.

Target groups - General Practitioners still large numbers still need to be recruited. Clinical Officers – largest single group who have large catchment areas. However 10% of clinical officers are actively involved in patient care.
At a CCC level all the health care groups are invaluable. Modules can be modified for the interested respective groups.

**Medications Errors/Complex Regimens**

To avoid Dual Therapy, Mega Haarts, Triple Nukes – due to lack of efficacy and Toxicity. Genotypic resistance testing. To confer with a more experienced colleague where possible.
CASE 1: Genotypic Resistance Testing
10 years on HAART with therapeutic failure. Age is 60.

Drugs History
2000 -2001 Crixivan/Combivir/Viracept

2004 Stocrin/Combivir/Zerit/Epivir

2005 Lamuvir/Zerit/Epivir

2007 – 2009 December Atripla

Alternative Medicine – Herbs

CD4 Count 335/275 – June to December 2009
Viral Load 3780/4051 – December 2009
Clinical:

Weight loss, Depression, Fevers, Recurrent UTI’s, DVT relapse and frequent admissions – 2009.
HIV Genotypic Drug Resistance

HIV 1 – PI Mutations none

HIV 1 – NNRTI Mutations K 103N, Y 181C, P 225H
  Effect:
    High class resistance to E,N and –ETR

HIV 1 – NRTI Mutations K 65R, M 184V, V 175M
  Effects:
    M 184H high level resistance to 3TC/FTC
      Beneficial:
        Reverses partially resistance to tenofovir
        Decreases viral replication by 50%
        Overall effect increases viral susceptibility to AZT
        (Therapeutic: Maintain 3TC/FTC N 184V mutations)

K 65R intermediate low resistance (Broad) 3TC/FTC, Abacavir, Videx and Tenofovir
Beneficial:

Increases susceptibility to AZT
(Therapeutic: Include AZT)

V 175M high level resistance to Zerit and Videx

**Selection of ARV's:**

Full activity PI boosted
AZT

Raltegravir

Partial activity 3TC/FTC/Tenofovir

**Therapeutic options (3 Drugs)**

Boosted PI

Raltegravir

AZT

Truvada

**Options 2 (Cost Issues)**

Boosted PI

AZT

Truvada


PRACTICUM SESSIONS

- **Prescribed**
  - ATAZOR 300mg OD
  - RITONAVIR 100mg OD
  - TRUVADA 1 OD
  - AZT 300mg BD

  Third month good clinical progress.
CASE 2: HIV Dermopathy / Hepatopathy - Toxicity

Age 35 years
Weight 39 Kg
CD4 256 - 09/05/2008
   172 - January 2009
   271 - 16/07/2009
   560 - 21/01/2010
HAART drugs with effect from February 2010
   N/Combivir - April 2009
   S/Combivir - February 2010
Seen on 12/02/2010
   Severe dermopathy (Pruritic) ADR – N/S
       S.J.S
       HAARTS withheld
Anaemia (grade 4) 6.6gm%   LFT’s and U/E’s Normal

Septicaemia, Dehydration

Severe stress reaction

Referred back from public hospital, prescribed Prednisone and Piriton.
Anaemia corrected with blood transfusion and rehydrated and prescribed Cetirizine, Eurax hydrocortisone topically, Analgesics, Multivitamins and supportive care. Systemic Steroids avoided.
GOLD STAR NETWORK

Do not object being used for "Practicum" Training Session as explained to me by the facilitator.

Dr. Yoss G.P.
GOLD STAR NETWORK

Fee: 5000-
Dermopathy / Hepatopathy – Toxicity
KAPOSI’S SARCOMA
# KAPOSI’S SARCOMA

## APPENDIX I

<table>
<thead>
<tr>
<th>AGENTS</th>
<th>ROUTE OF ADMINISTRATION</th>
<th>DOSE/M</th>
<th>FREQUENCY</th>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vincristine Monotherapy</td>
<td>IV</td>
<td>1.4mg</td>
<td>Weekly/fortnightly</td>
<td>Peripheral neuropathy, tissue necrosis on extravasation</td>
</tr>
<tr>
<td>Vincristine Bleomycin</td>
<td>IV</td>
<td>1.4mg</td>
<td>Fortnightly</td>
<td>Peripheral neuropathy, pulmonary fibrosis, cutaneous damage, hepatic damage, fevers</td>
</tr>
<tr>
<td>Bleomycin</td>
<td>IV</td>
<td>10mg</td>
<td>Fortnightly</td>
<td>Cutaneous damage, pulmonary fibrosis, bone marrow suppression, tissue necrosis on extravasation</td>
</tr>
<tr>
<td>Bleomycin</td>
<td>IV</td>
<td>4-6mg</td>
<td>Fortnightly</td>
<td>As above, nausea, vomiting</td>
</tr>
<tr>
<td>Doxorubicin</td>
<td>IV</td>
<td>1mg</td>
<td>Fortnightly</td>
<td>As above</td>
</tr>
<tr>
<td>Vinblastine Bleomycin</td>
<td>IV</td>
<td>4-10mg</td>
<td>Fortnightly</td>
<td>As above</td>
</tr>
<tr>
<td>Vinblastine</td>
<td>IV</td>
<td>9mg</td>
<td>Every 3 weeks</td>
<td>Bone marrow suppression</td>
</tr>
<tr>
<td>Vinblastine</td>
<td>IV</td>
<td>25mg</td>
<td>The next day</td>
<td>The next day</td>
</tr>
<tr>
<td>Interferon alpha</td>
<td>Subcutaneously</td>
<td>2x-4mg</td>
<td>Twice-weekly</td>
<td>Flu-like symptoms, nausea, vomiting, bone marrow suppression</td>
</tr>
</tbody>
</table>

Note: Critically ill patients or those with resistant disease should be referred to specialists.

Guidelines for Opportunistic Infections
## KAPOSİ’S SARCOMA

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Dose</th>
<th>Overall response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinblastine</td>
<td>1.4 mg/m² (max. 2 mg) weekly IV</td>
<td>10-85%</td>
</tr>
<tr>
<td>Vinorelbine/vinblastine</td>
<td>Vinorelbine 2 mg IV, and vinblastine 0.2 mg/kg IV alternately weekly</td>
<td>Up to 43%</td>
</tr>
<tr>
<td>Vinorelbine/bleomycin</td>
<td>Vinorelbine 7 mg and bleomycin 10 mg/m² every 2 weeks IV</td>
<td>10-75%</td>
</tr>
<tr>
<td>Bexarotene</td>
<td>15 mg single dose every 2-3 weeks IM or 6 mg/m²/day over 4 days IV every 4 weeks</td>
<td>10-75%</td>
</tr>
<tr>
<td>Disopena</td>
<td>10 mg for 7 of every 21 days PO or 100 mg for 5 days every month</td>
<td>30-95%</td>
</tr>
</tbody>
</table>
GSN – Gold Star Network has provided sustainable opportunity for scaling up and provision of quality HIV/AIDS care by private providers.

The Physician has a privileged position to lead the multi-disciplinary teams.

However Mentorship and networking currently at infancy requires to be developed.

Research in areas of adult learning in our environment needs to be incorporated.
ACKNOWLEDGMENTS

- KAPS Secretariat
- Gold Star Network
- Technical Committee
- KMA HIV/AIDS Committee
- Mentor Dr. J.B. Okanga – Physician
- Secretarial Services
- KMA Office
- FHI Operations – Maureen
- ICT – Aga Khan Hospital, Mombasa
REFERENCES

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- Guidelines for use of ART agents in HIV 1 infected adults and adolescents – DHHS Panel
- EACS Guidelines for clinical management and treatment of HIV infected adults in Europe.
- Guidelines to ART in Kenya
- Handbook of HIV medicine – South Africa – Douglas, Wilson, Gary Martin etal
ASANTE