The role of a Pharmacist in the analysis of adherence rates and associated factors in HIV-patients registered on Centralized Chronic Medicines Dispensing and Distribution (CCMDD) programme in the public sector in South Africa.
Dr N L Katende-Kyenda

Department of General Medicine and Pharmacology, Faculty of Health Sciences, Walter Sisulu University, Mthatha – South Africa
OUTLINE

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Background

• SA over the past decade has experienced an unpredicted growth in patients requiring access to long term therapies,

• Not only has SA introduced universal access to ART for patients living with HIV and AIDS but there has also been a steady increase in the proportion of the population with NCDs requiring therapy.
Background (cont)

• This change in the epidemiological profile has led the country to extend the public sector health care facilities,

• Placing enormous strain on availability resources and contributing towards medicine shortages declining the quality of care.
Therefore CCMDD programme was rolled out since 2014 in ORT Municipality districts,

As a pilot study for NHI implementation in SA.
This is also a business model for private sector involvement in the provision of health care services in the public sector,

Initially CCMDD focused primarily on the provision of ARVs, FDC (Efavirenz, Tenofovir & Emtricitabine) in particular,

To stable HIV- patients,

Later was extended to other chronic conditions whose management consist of bi-annual clinic visits and check-ups.
Background (cont)

• Over 260000 patients are registered on CCMDD programme,

• This has helped to improve access to chronic medications,

• Reducing on the waiting times,

• Thus improving on the quality of care.
Objectives

• To analyse adherence rates and;

• Associated factors in HIV-patients registered on CCMDD programme in the public sector in South Africa in a PHC setting
Methodology

• Data were collected from 100 HIV-infected during a descriptive cross-sectional study using a standardized-questionnaire and face-to-face-exit interviews,

• Pill-counts technique was performed and adherence-rate of > 95% considered acceptable,

• Data were analyzed using SPSS 22.0.
Methodology (cont)

• Univariate-factors associated with poor-adherence to HAART were assessed using ANOVA and $p \leq 0.05$ considered statistically significant,

• Of 100 HIV-infected, 74 were females and 26 males enrolled on HAART for more than 36 months.
RESULTS AND DISCUSSION

• Of these, 26 and 36 were on WHO stages 2 and 3 respectively,

• Adherence-rates computed from 76 patients revealed 43 (56.6%) having poor adherence-rates,

• Of the demographic factors analyzed age (35-44 yrs) and educational background had an influence on adherence rates with $p = 0.087$ and 0.097 respectively.
Table 1: Factors associated with poor adherence to HAART in HIV-infected registered on CCMDD (N = 76)

<table>
<thead>
<tr>
<th>Factors of interest</th>
<th>Acceptable adherence rate ≥ 95%</th>
<th>Poor adherence rate ≤ 95%</th>
<th>P - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>0.087</td>
</tr>
<tr>
<td>20-34</td>
<td>11 (33.33)</td>
<td>13 (30.23)</td>
<td></td>
</tr>
<tr>
<td>35–44</td>
<td>13 (39.39)</td>
<td>18 (41.86)</td>
<td></td>
</tr>
<tr>
<td>≥45</td>
<td>9 (27.27)</td>
<td>12 (27.91)</td>
<td></td>
</tr>
<tr>
<td>Educational Background</td>
<td></td>
<td></td>
<td>0.097</td>
</tr>
<tr>
<td>Primary</td>
<td>4 (10.5)</td>
<td>14 (34.15)</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>12 (3.75)</td>
<td>7 (17.07)</td>
<td></td>
</tr>
<tr>
<td>Matric</td>
<td>10 (31.25)</td>
<td>12 (29.27)</td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>6 (18.75)</td>
<td>8 (19.51)</td>
<td></td>
</tr>
<tr>
<td>Recent CD4 Count</td>
<td></td>
<td></td>
<td>0.070</td>
</tr>
<tr>
<td>&lt;200</td>
<td>3 (9.68)</td>
<td>0 (0)</td>
<td></td>
</tr>
<tr>
<td>200-340</td>
<td>1 (3.23)</td>
<td>3 (7.32)</td>
<td></td>
</tr>
<tr>
<td>350-490</td>
<td>3 (9.68)</td>
<td>8 (19.51)</td>
<td></td>
</tr>
<tr>
<td>≥500</td>
<td>24 (77.42)</td>
<td>30 (73.17)</td>
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</tr>
<tr>
<td>ADEs</td>
<td></td>
<td></td>
<td>0.073</td>
</tr>
<tr>
<td>1</td>
<td>3 (33.33)</td>
<td>1 (8.33)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2 (22.22)</td>
<td>4 (33.33)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0 (0)</td>
<td>3 (25.00)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1 (11.11)</td>
<td>2 (16.67)</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS AND DISCUSSION (CONT)

• Other factors associated with non-adherence were:
• WHO staging \( (p = 0.016) \),
• Stigma \( (p = 0.027) \).
• Different waiting times
• Of the different areas with waiting times,

• Reception and pharmacy areas were statistically significant with $p = 0.095$ and $0.042$ respectively.
Conclusions

- Adherence rates were low:
  - Associated factors were:
    - Age
    - Educational background
    - Recent CD4 Count
    - ADEs
    - Stigma
    - Waiting times

- also results in poor clinic attendance.

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Recommendations

• Pharmacists as custodians of medicines and
• Important PHC providers
• Need to collaborate with other stakeholders in order
• To educate patients on CCMDD on the importance of ARV adherence so as to avoid complications and improve on the quality of care.

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• Issues related to waiting times have to be tackled to seriously for this programme to be successful.
Future Plans

Assess the quality of life of HIV-infected on ARVs and registered on CCMDD
REFERENCES

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