Paliperidone Palmitate For treatment of adults with schizophrenia in Kenya - A Retrospective Chart Review

Towards Sustainable and Scalable Mental Health Services In Africa.

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KENYA

• Population- 52.6 million
• World Bank-Lower-middle income economy
• Approximately 20% insurance coverage; 89% NHIF (MOH, 2018).
• Number of psychiatrists - 125
• Only 3 child & adolescent psychiatrists
Key Strategies for Providing Sustainable Mental Healthcare in Africa

- Strengthening mental health workforce capacity
- Improving the availability of essential medicines
- Addressing stigma
- Building an information system
Challenges in access to Psychotropic Medications

• Unstable supply chains,
• Poor forecasting of drug needs
• Lack of reliable financing/inability of patients to pay for medicines.
• Resistance of providers to new medications
• Lack of treatment guidelines for providers
Registration of Paliperidone Palmitate in the Region

• Registration of Paliperidone Palmitate in the region 2016 – 2020

• Kenya - 2020 (Named Patient Importation since December 2017 through Chiromo Hospital Group)

Background

- Accessibility of second generation long acting injectable antipsychotics (LAI AP) is a huge challenge in Africa
- Studies have consistently identified significant benefit of LAIs versus oral antipsychotics in preventing hospitalisation or relapse
- Limited local research on long acting injectable Paliperidone Palmitate (LAI-PP)
- LAI-PP - reduced the mean numbers of hospital admissions, bed days and Emergency Department visits

1. Long-acting injectable versus oral antipsychotics for the maintenance treatment of schizophrenia: a systematic review and comparative meta-analysis of randomised, cohort, and pre–post studies - The Lancet Psychiatry
2. Clinical Psychopharmacology and Neuroscience 2019;17(4):531-536 So-Young etal
Objectives

Main objective
To characterize patients on LAI paliperidone palmitate (LAI-PP) for treatment of schizophrenia

Specific objectives
1. To assess their social demographic profile
2. To examine clinical characteristics related to LAI-PP use such as, need for hospitalization, number of hospitalization, duration of hospitalization
3. To assess functional outcome of these patients
Design and Methods (1)

• A comprehensive, retrospective chart review of patients accessing Paliperidone Palmitate at the Chiromo Hospital Group in Nairobi, Kenya

• Permission to access the records was granted by the Board of Management through the Chairman

• All records of the 120 patients on LAI-PP from December 2017 to January 2020 were reviewed between January 2020 to April 2020
**Design and Methods (2)**

- 72 patient records were complete and patients were still accessing LAI-PP from the hospital.
- Functional outcome was recorded as per the clinical notes at home, workplace or school/college.
- Data on socio-demographics, Paliperidone dose, hospitalization, duration of hospital stay and functionality before and after paliperidone was reviewed and analyzed using SPSS for Windows version 23.0, Descriptive statistics, Wilcoxon test and Fischer’s exact test.
Socio-demographic characteristics

• 59.7% were males
• The mean age was 32.3±9.7 years
• Age Range 16-60 years.
• 90.1% had tertiary education; 10% secondary school education.
• Majority (71.8%) were single
• 44.4% had an income, 36.1% were students depending on their parents and 19.4% were unemployed
Treatment characteristics

• 40.3% of the patients had been on treatment for 7-12 months, 20.8% ≤6 months, 22.2% 13-18 months, 9.7% 19-24 months

• Only 6.9% had been on treatment for more than 2 years

• 75% were paying for the treatment through insurance (enhanced NHIF)=26.4%; Private =48.6%), (25%) out of pocket (cash)

• 67.6% were on 100mg of Paliperidone palmitate dose
Reduction in hospital admissions after LAI-PP

Mean (Pre) 2.7±2.6; Mean (Post) 0.6±0.9. Range (Pre) 0-12; Range (Post) 0-3; P<0.001
Reduction in proportion of hospital admissions after LAI-PP

68/72 (94%) required admission before LAIPP; 28/72 (39%) after LAIPP; p = 0.035
Significant reduction in duration of stay after LAI-PP

Duration of Stay Before and After Paliperidone Palmitate

Before: 42.6 ± 28.1 days
After: 14.6 ± 15.6 days

Duration (Pre) 42.6±28.1; Duration (Post) 14.6±15.6; p<0.001
69.4% had good functional outcome (95% CI 58.3-79.2)

- Good, n=50
- Poor, n=22, 31%
No relationship between socio-demographic characteristics and functional outcomes

- Gender
- Age
- Education Level
- Marital Status
- Employment Status
- Mode of Payment
- Duration of Treatment
<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Functionality</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7(24.1%)</td>
<td>22(75.9%)</td>
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<tr>
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<td>15(34.9%)</td>
<td>28(65.1%)</td>
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<td>Gender</td>
<td>Female</td>
<td>7(24.1%)</td>
<td>22(75.9%)</td>
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<td>Male</td>
<td>15(34.9%)</td>
<td>28(65.1%)</td>
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<td>Age</td>
<td>16-25 Years</td>
<td>5(25.0%)</td>
<td>15(75.0%)</td>
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<td>26-35 Years</td>
<td>8(26.7%)</td>
<td>22(73.3%)</td>
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<td>36-45 Years</td>
<td>6(46.2%)</td>
<td>7(53.8%)</td>
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<td>46 and Above Years</td>
<td>3(33.3%)</td>
<td>6(66.7%)</td>
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<td>Education Level</td>
<td>High school</td>
<td>2(28.6%)</td>
<td>5(71.4%)</td>
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<td>45(70.3%)</td>
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<td>Single</td>
<td>14(27.5%)</td>
<td>37(72.5%)</td>
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<td>Separated/ Widowed/ Divorced</td>
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<td>2(50.0%)</td>
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<td>Employment Status</td>
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<td>9(39.1%)</td>
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<td>Self-employed</td>
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<td>7(77.8%)</td>
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<td>Student</td>
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<td>20(76.9%)</td>
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<td>Unemployed</td>
<td>5(35.7%)</td>
<td>9(64.3%)</td>
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<td>Mode of Payment</td>
<td>Cash</td>
<td>5(27.8%)</td>
<td>13(72.2%)</td>
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<td>NHIF</td>
<td>9(47.4%)</td>
<td>10(52.6%)</td>
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<td>Private insurance</td>
<td>8(22.9%)</td>
<td>27(77.1%)</td>
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<td>Duration of Treatment</td>
<td>&lt;=6 Months</td>
<td>5(33.3%)</td>
<td>10(66.7%)</td>
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<td>7-12 Months</td>
<td>11(37.9%)</td>
<td>18(62.1%)</td>
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<td>13-18 Months</td>
<td>2(12.5%)</td>
<td>14(87.5%)</td>
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<td>19-24 Months</td>
<td>3(42.9%)</td>
<td>4(57.1%)</td>
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<td>Above 24 Months</td>
<td>1(20.0%)</td>
<td>4(80.0%)</td>
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Conclusion

• Patients on LAI-PP improved in clinical status with fewer hospitalization, shorter duration of hospitalization and improved overall functional outcomes

• This data suggests that use of second generation LAI APS may be one of sustainable and scalable options in the African context
Unanswered questions

• Cost benefit
• Other implementation factors (e.g. acceptability, cultural appropriateness, accessibility)
Acknowledgements

TABITHA SHALI

DR ELIZABETH NGARACHU
A report by the Taskforce on Mental Health in Kenya

SUMMARY OF KEY RECOMMENDATIONS

1. Set up a Mental Wellness and Happiness Commission, to monitor the state of mental health and happiness among Kenyans.
2. Declare mental illness a National Emergency of epidemic proportions.
3. Carry out a National Mental Health survey.
4. Fast-track the creation of Mathari Teaching and Referral Hospital as a semi-autonomous Government Agency for specialized referral services, teaching and research in mental health.
5. Implement a multi-sectoral approach to Mental Health challenges, (similar to that adopted in 1999 against HIV/AIDS).
6. Provide adequate financing for mental health, in line with international best practices (Kshs. 250 per capita per annum).
7. Regulate and license all institutions offering healthcare (including rehabilitation centres) through the Kenya Medical Practitioners and Dentists Council.
8. Amend and/or repeal specified legal provisions that offend the Constitution, and Acts of Parliament.
9. Gazette the second week of October as the National Mental Health Awareness Week in Kenya.
10. Develop Mental Health literacy materials for use across all sectors as a means of dealing with stigma and discrimination.
11. Support the Senate Initiative on the Mental Health (amendment) Bill 2018 (subject to a number of proposed amendments).
12. Involve Carers and Users of mental health services at all levels of legal and policy development.
13. Decentralize mental health services to the primary health care level.
14. Train and recruit mental health professionals to bridge the gap in human resources per population ratio.
15. On the COVID-19 Pandemic, we observe that the implementation of the taskforce recommendations will be an important strategy in the COVID-19 pandemic response and long term recovery.
Asante Sana

Thank you

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