

Scientific Conference & Annual General Meeting

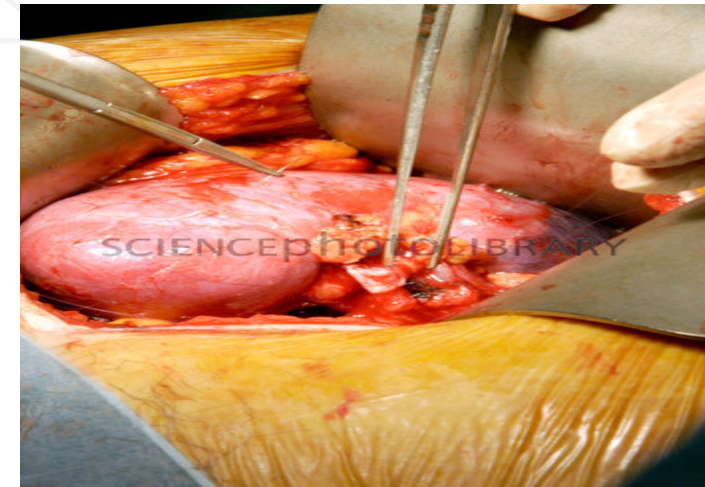


Theme: "Addressing local and global health challenges by building
Climate resilient, responsive and E-smart Healthcare Systems"

August 30th – 31st 2024
Avani Victoria Falls Resort – Livingstone, Zambia

Kidney Transplant in a resource limited setting

Dr. Mweemba Aggrey, Nephrologist





KIDNEY DISEASE

- **The silent epidemic**
- **The end result of most common diseases**
- **Chronic Kidney Disease (CKD)**
 - abnormalities of kidney structure or function
 - present for >3 months, with implications for health
 - Irreversible
 - costly
- **Acute Kidney Injury (AKI)**
 - Not topic for today but lasts few hours to days
 - Reversible when intervention early

Burden of chronic kidney disease on the African continent: a systematic review and meta-analysis

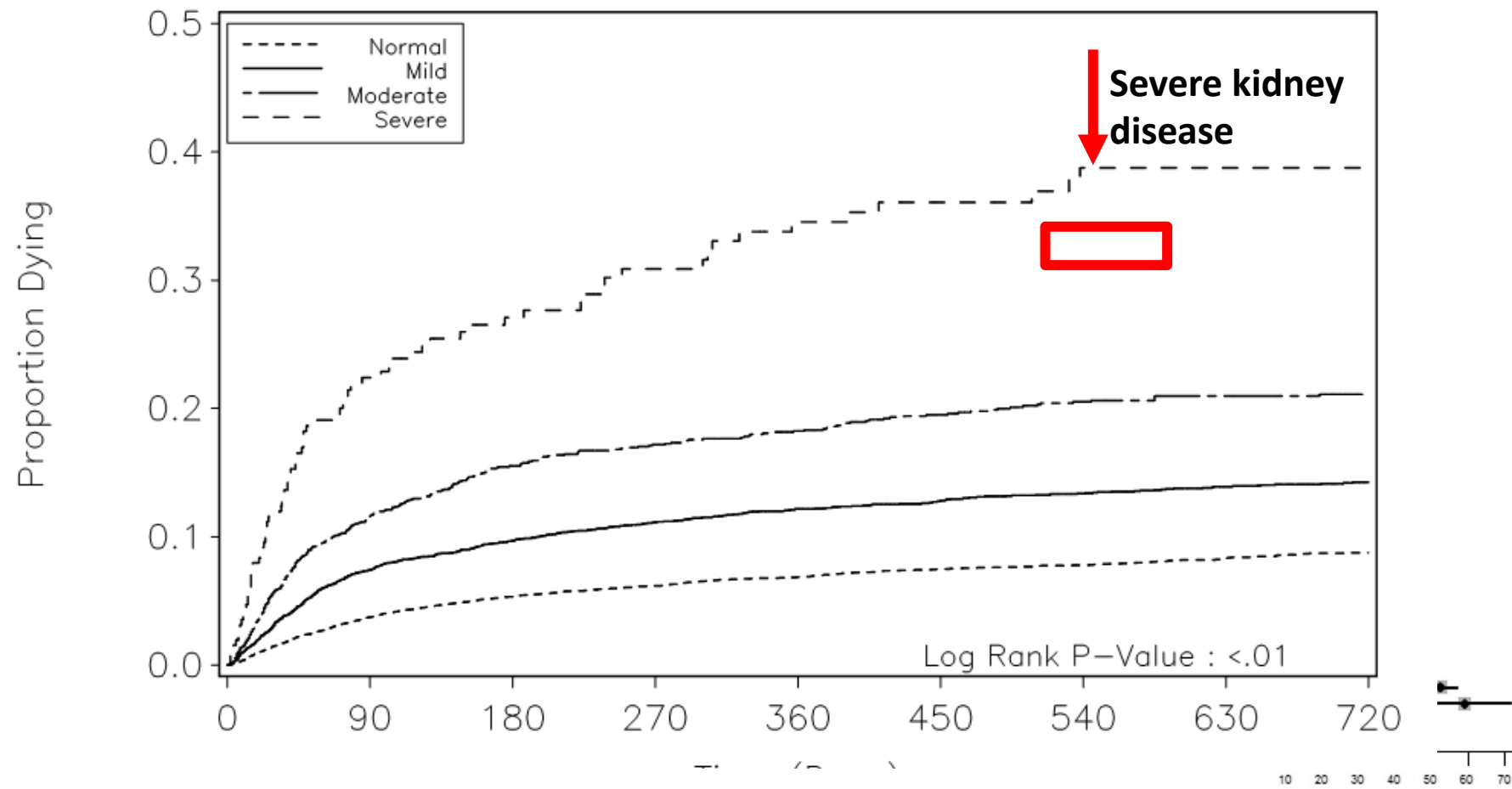
Prevalence of CKD stages 3 to 5 in high-risk populations of adults living in Africa

Why the concern about Kidney Disease?



Mortality is high

Reference	Country
Lucas GM 2010	Uganda
Chambisani M 2015	South Africa



Nephrology Services in Zambia

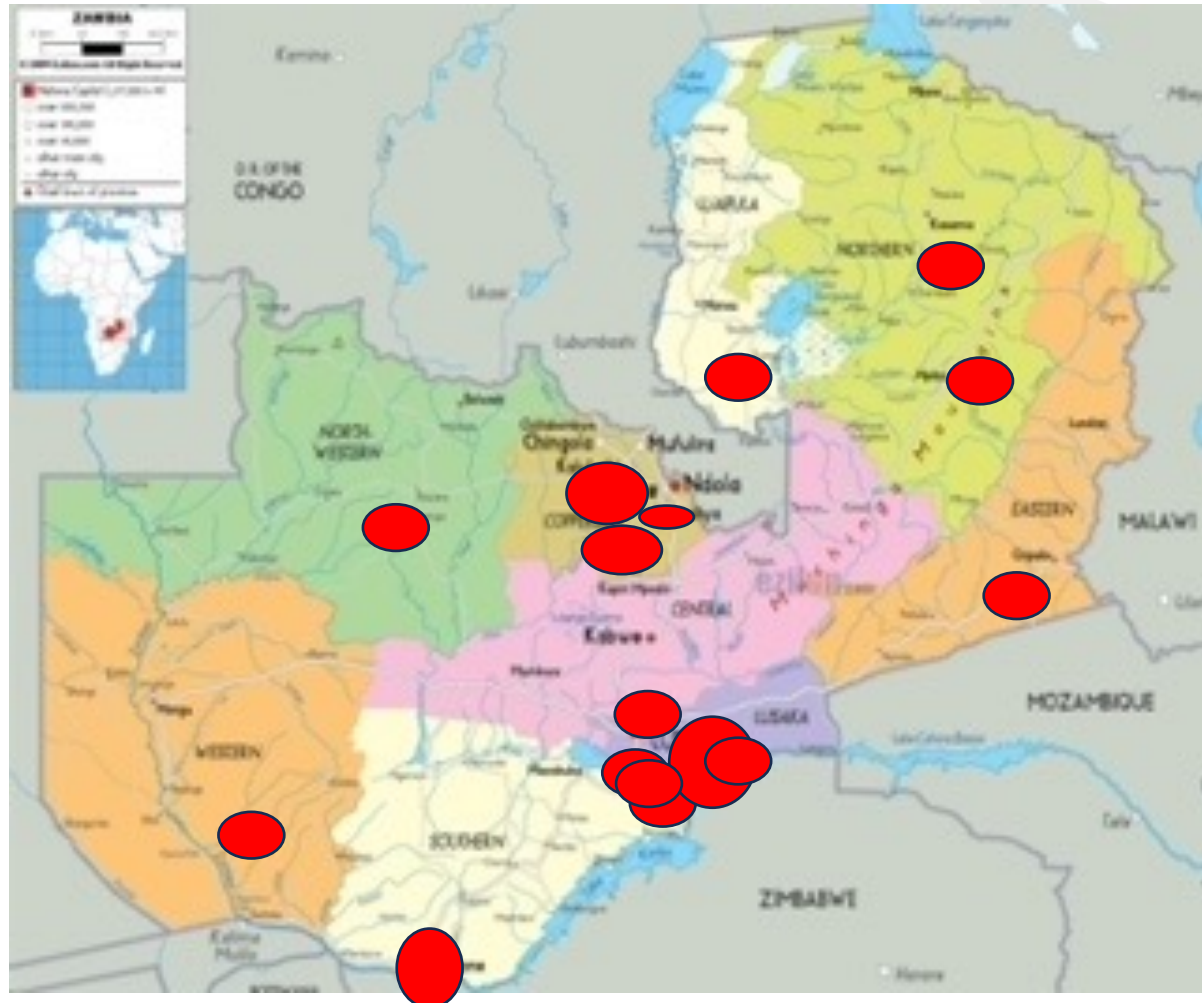
CKD Management

- ❖ **Conservative**
- ❖ **Dialysis**
 - ❖ 16 Centers from one in 2010 (UTH with 3 HD machines)
- ❖ **Transplant**
- ❖ **Palliation**

Challenges Despite this Expansion

- ❖ Patients accessing service \approx a tip of an iceberg
 - 2% coverage in sub-Saharan Africa
 - most of patients die before referral to dialysis units.
 - access to dialysis impacted by congestion
 - some opt out due to social factors (distance or transport money).
 - ❖ Dialysis is a temporally measure as patients await Transplant
- 
- A photograph of an iceberg floating in the ocean. The small tip of the iceberg is visible above the water surface, while the much larger, submerged part of the iceberg is visible below the surface, illustrating the concept of a "tip of the iceberg".

16 Nephrology Units Across Zambia past 14 years in the Public Sector



KIDNEY TRANSPLANT SERVICES IN ZAMBIA



- ❖ No program despite ambitions since 2010
 - ❖ Patients with kidney donors are referred to India for transplant
 - ❖ Program favors richer patients
 - ❖ Costly for government
 - Cost of transplantation in India
 - ☞ USD18,000-25,000/patient
 - ❖ Cost could be reduced if transplantation became local
- From Inception the dream of a Nephrologist is to have your patients transplanted.
 - Since 2010, the dream came to light on the 25th December 2018 after several attempts in previous years despite support from
 - Egypt
 - India
 - Turkey
 - UK
 - South Africa
 - Even then it was only one pair who could accept



Comparisons: Dialysis vs Transplant

	Quality of life	Monthly hours on treatment	Complications	% year survival	Cost per month	Overall
Dialysis	Poor	48-60	More	≈ 35%	Expensive	✓
Transplant	Excellent	Few minutes	Less	≈ 70-86%	Far Cheaper	✓✓✓ ✓✓

Our Transplant Program: **Slow Progress**

YEAR	DONE	FUNCTIONAL ALLOGRAFT	REJECTIONS	MORTALITY
2018	1	1	0	0
2022	5	5	0	0
2023	9	6	1	2
2024	1	1	0	0
TOTAL	16	13	1	2

The Date: 25th Dec, 2024



The Fulfilment

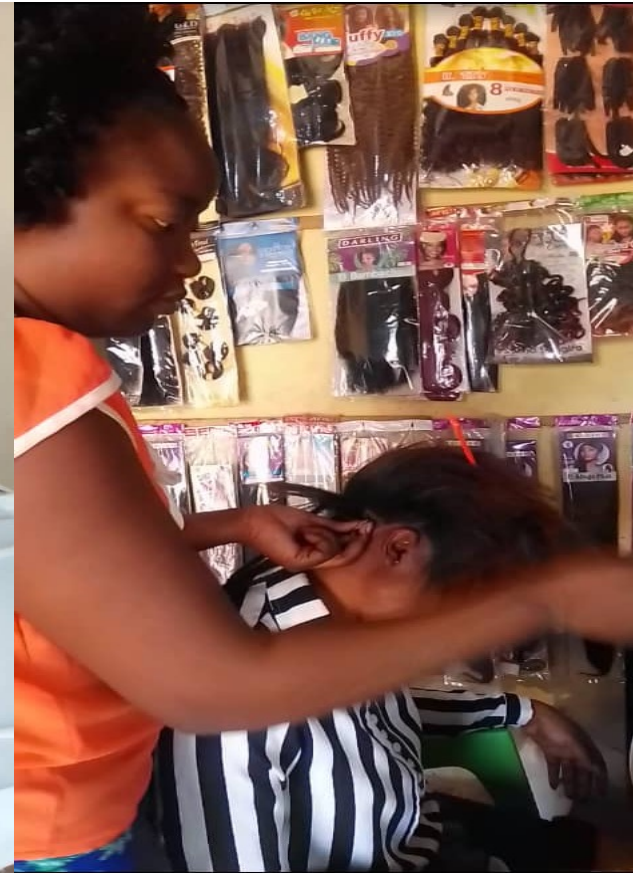
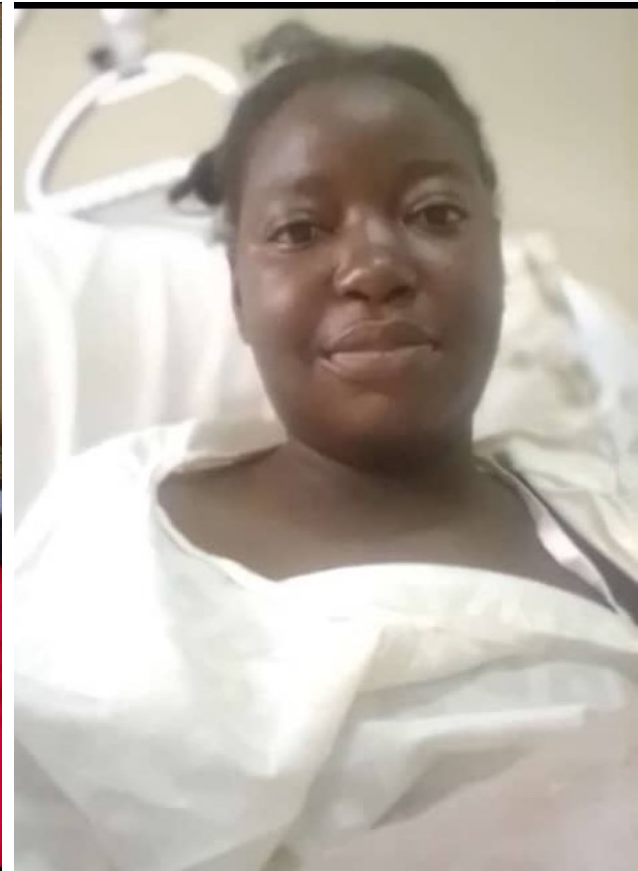
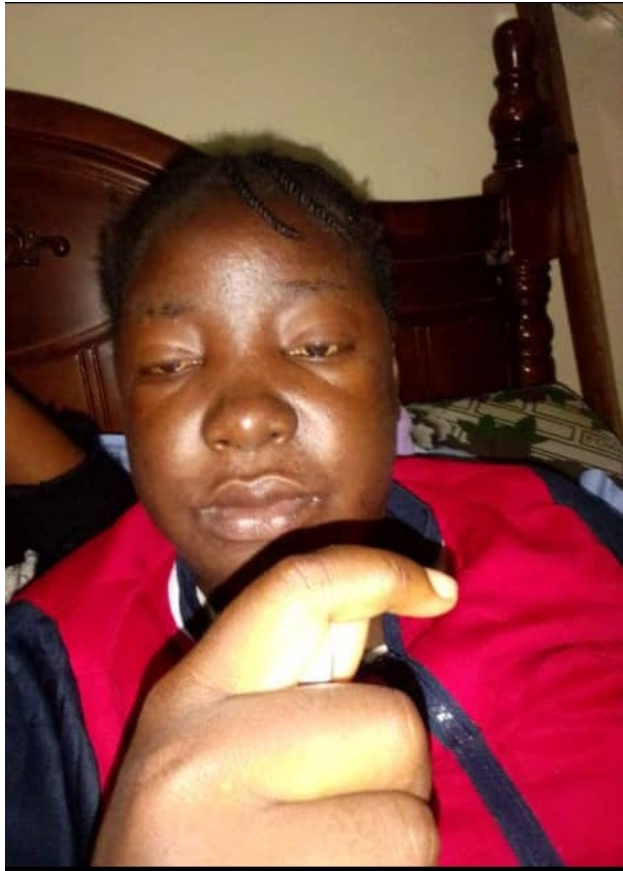


An Advocate for the Transplant Program



Consent obtained

Emotional



Consent obtained



Strengths

- Govt Support
- NHIMA on board
- Patient willingness
- Budget allocation
- Team

Weaknesses

- Human Resource (Surgical critical)
- Imaging (CTA, Nuclear Medicine)
- Immunology-HI Δ

Functional Team with support mainly from India for now	Challenges
<ul style="list-style-type: none"> ❖ Anaesthesia ❖ Pharmacy/logisrics ❖ Nephrologists ❖ Nephrology nurses ❖ Critical Care ❖ Lab ❖ Blood bank ❖ Radiology ❖ Surgeons 	<ul style="list-style-type: none"> ❖ Skills transfer from the indian team very slow ❖ American College of Surgeons came board ❖ MoH with UTH Adult to send surgeons for skills transfer ❖ Engagement with ACS with MoH & Adult Hospital ❖ First Surgeon came in 2 months ago ❖ 6 other surgeons have volunteered



American College of Surgeons Support

Proposal to support American Surgeons

- ❖ 3-4 visits by 1-2 surgeons
- ❖ perform 4 kidney transplants
- ❖ main objective is skills transfer to local surgeons
- ❖ Local surgeons already identified
- ❖ Nov 2024, Feb 2025, July 2025 and Nov 2025

On-Going Strengthening Activities

- Train 4 Nephrologists Applications per year (one application done)
- 2 Nurse Transplant Coordinators (Commencing training January 2025)
- 2 Pathologists (1 application done)
- 2 HLA Technologists and 1 pathologists (discussing placements)
- Short courses on Brain Death certification among neurologists and anaesthetics



Acknowledgements

- MoH Hq
- UTH/NHH Management
- NHIMA
- The Different Indian Teams
 - KIM
 - Asler
 - Well spring medical Centre

- The American College of Surgeons
- Prof Pham for lobbying for the program in the US
- Dr Mapulanga & Dr Mbambiko
- The local Team for the dedication to the cause