



**PROPOSED PROJECT FOR STRENGTHENING SUSTAINABLE  
KIDNEY STONES DISEASE MANAGEMENT  
AT BENJAMIN MKAPA HOSPITAL**

A Collaboration between Benjamin Mkapa Hospital  
and Pakistan Kidney Center Abbottabad.

PROPOSED PROJECT FOR STRENGTHENING SUSTAINABLE KIDNEY STONES  
DISEASE MANAGEMENT  
AT BENJAMIN MKAPA HOSPITAL

Prof. ABEL MAKUBI  
Executive Director (BMH)

.....

Monica Kessy  
Director of Research and Training (BMH)

.....

Dr. Shija Kessy  
Director of Medical Services

.....

Dr. Remigius Rugakingira  
Assistant Director of Renal Services

.....

Dr. Vitus Kajerero  
Medical Specialist (Urology)

.....

DATE: ...../...../.....

## **EXECUTIVE SUMMARY**

Benjamin Mkapa Hospital (BMH) is a leading healthcare institution in Dodoma, Tanzania, known for its commitment to providing high-quality medical services. BMH offers specialized and super-specialized health services that were previously unavailable in the region. BMH provides comprehensive treatments in areas such as kidney transplants, bone marrow transplants, cardiology, neurosurgery, orthopedics, oncology, radiotherapy, nuclear medicine, endourology and minimally invasive procedures like laparoscopy and endoscopy. These services have made BMH a state-of-the-art hospital with high quality affordable clinical services. Pakistan Kidney Center (PKC) in Abbottabad is a charitable healthcare facility dedicated to providing comprehensive kidney care services, particularly to underserved populations. The center offers outpatient consultations, hemodialysis treatments with multiple machines operating in shifts, and surgical procedures such as kidney stone treatments, vascular access creation for dialysis patients, and kidney biopsies. This concept note serves at the first draft of the endourology project between BMH and PKC. It gives important background about BMH and PKC , Collaborative statement, objectives and, implementation, training budget and expected outcome of this collaboration.

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## **LIST OF ABBREVIATIONS**

BMH	Benjamin Mkapa Hospital
PKC	Pakistan Kidney Center
PWS	Pakistan Welfare Society
UDOM	University of Dodoma
ESWL	Extra Corporeal Shock Wave Lithotripsy

## **INTRODUCTION**

### **1.PROFILE OF THE HOSPITAL**

The Benjamin Mkapa Hospital (BMH) was established as a corporate body by an instrument of the President of the United Republic of Tanzania under Government Notice No. 454 of 2015 which was gazetted by the government on 16th October, 2015. Its establishment emanates from the intention of the Government to have a hi-tech and ultramodern diagnostic and treatment Centre in Tanzania by 2015. The institution is located in Dodoma and the main government Hospital in the capital city serving a catchment population of about 14 million people in the regions of Dodoma, Singida, Manyara, Njombe, Iringa, Morogoro and Tabora.

The Benjamin Mkapa Hospital is expected to be a Centre of excellence for medical services in terms of diagnosis and treatment specifically for urology, Endoscopic services. BMH closely collaborates with the University of Dodoma (UDOM) in providing clinical care, teaching, consultancy and research.

### **2.OVERVIEW OF CURRENT SITUATION OF UROLOGY AND KIDNEY STONE MANAGEMENT SERVICES.**

Urology Department in Benjamin Mkapa Hospital, located in Dodoma, Tanzania, was established in 2015. The department has grown significantly over the years and is now renowned for its comprehensive range of urology services. The department serves more than 50,000 patients in a year with more than 20,000 operations

BMH Urology Department is staffed by seven highly skilled urologists, two super specializing in Endourology and Kidney Transplant. These specialists are dedicated to providing advanced and minimally invasive surgical options, including penile implants, kidney transplants, pediatric urology, reconstructive urology, and other minimal invasive surgeries.

The Department of urology under the Directorate of Medical Services provides quality clinical care, training and research. The hospital has invested much in Endourology, endoscopic instruments, laboratory and radiology investigations such as CT scan, MRI, endourology machines such as Laser lithotripsy machine, Pneumatic and Ultrasonic lithoclast, two C-Arms machines, Extra Corporeal Shock Wave Lithotripsy (ESWL) and other consumables. Despite of these efforts, still lacking other consumable instruments like dilators, hydrophilic guide wires and extractions devices including baskets, nephrostomy

catheters, balloon sweep and graspers in which the hospital has been trying much to acquire them. 624 cases of Urinary Calculi patients have been endoscopically operated from May 2021 till dec 2024. But due to increase of patients and, limited numbers of experts and organization of the services, the hospital vision and target has not been effectively reached.

### **3.PAKISTAN KIDNEY CENTER AND DR AASEM PROFILE**

Pakistan Kidney Center (PKC) is a charitable healthcare facility located near the Abbottabad-Havelian motorway interchange in Abbottabad, Pakistan. Established by the Pakistan Welfare Society (PWS), construction of the center began in 2013.

Pakistan Kidney Center (PKC) in Abbottabad offers comprehensive kidney-related medical services such as dialysis, kidney transplants and kidney stone management. The center has recently introduced advanced laser treatment facilities for kidney stones, enhancing its capacity to provide effective care including modern laser treatments and lithotripsy. The center also engages in educational programs to raise awareness about kidney health.

PKC was introduced by a well-known Urology Professor, Mr Aasem M Chaudry, [www.topdoctors.co.uk/doctor/aasem-masood-chaudry](http://www.topdoctors.co.uk/doctor/aasem-masood-chaudry) based in United Kingdom who is affiliated/board member and trustee with the hospital.

### **STATEMENT OF COLLABORATION.**

This collaboration aligns with the vision of increasing and establishment of new modern management options services for Urinary stones. This will make Benjamin Mkapa hospital being a center of excellence specialized in Urinary stones management among highly specialized services with vision of becoming a National Hospital.

For our collective benefits and prosperity of mankind we aspire to engage this collaboration that in due cause will be formalized by MOU.

### **OBJECTIVES**

#### **BROAD OBJECTIVES**

This concept note aims to outline a comprehensive plan for improvement in management of kidney stones at Benjamin Mkapa Hospital with collaboration from Pakistan Kidney Center.

## **SPECIFIC OBJECTIVE**

1.Service Provision

2.Training

3.Research and Innovation

### **1.Service Provision**

This will base on strengthening kidney stones management using high technologies and techniques that improves both outcome and quality of care. It will also involve increasing community awareness, designing patients flow, accessibility and affordability of services for patients and identifying the barriers strategically that hinders patients to use these services for now.

The focus of this collaboration is to provide capacity building that will enable realization of these services.

### **2.Training**

This will ensure sustainability of services through training of expertise like Endo Surgeons, nurses, biomedical engineers and other professionals in the field of kidney stones that will be determined by time.

This involves

- i. Training at high volume center with modern technologies and exposure in the institutions with the best practices in the work such at Pakistan Kidney Center Abbottabad.
- ii. Continuous support from both parties, through short visits at BMH in form of workshops, conferences, live surgeries and the likes.

The focus of this collaboration is to start a continuous educational program in the region and provide opportunity for exchange program.

### **3.Research and Innovation**

This will involve identifying prevalence and risk factors associated with kidney stones in Tanzania, evaluation of the effectiveness of current treatments modalities and explore innovative technologies and practices that can improve diagnosis, treatment and preventive strategies.



Benjamin Mkapa hospital vision of becoming national hospital and presence of UDOM which uses BMH as a teaching hospital together with this collaboration, it will help to establish collaboration with other academic institutions and research organizations.

This collaboration will foster participation in Global Kidney stones innovative research networks to share knowledge and best practices.

### **PROPOSED ACTIVITIES**

This will be different from time to time to suit the needs like sending trainees to UK/PAKISTAN and organizing webinars and workshops. Each activity will have a champion and budget.

### **JUSTIFICATION**

BHM has been investing in modern equipments which some of them have never been used because of lack of expertise.

Need of BMH to offer super specialized services in urology which will reduce referrals and cut operational costs.

Presence and willingness of reputable stakeholders who are willing to support on mutual benefits for our hospital. All of them can lead to increase number of patients who need best quality, affordable and guaranteed services.

### **STATEMENT OF GOING FORWARD AND IMPLEMENTATION**

This project will be implemented in phases and these will be renewed from time to time.

**Phase 1;** Introduction from both parties and Assets mapping. Try and fill in the gaps in the availability of the required equipment and find resources to achieve this.

**Phase 2;** Training of a dedicated stone surgeon for 4-6months in a busy stone center, Pakistan Kidney Center

**Phase 3;** Launching of services at BMH and conducting stone workshops

**Phase 4;** Consolidation phase involving follow up remote as well as further visits from expertises 1-2 times a year, attending conferences and collaborations in innovative researches.

### Implementation Timeframe

ACTIVITY	DATE
Introduction from both parties and Assets mapping	September 2024 to April 2025
Fellowship training	1 <sup>st</sup> April to 31 <sup>st</sup> September 2025
Launching and conducting stone workshop at BMH	November/December 2025
Consolidation phase	From 2026 on wards

### EXPECTED OUTCOME.

- Improve patient care by making easily accessible services with comprehensive treatment and hence reducing morbidity
- Enhancing Hospital Reputation being regional center of excellence offering specialized services in kidney stones management.
- Increase patient turnover and financial growth from consultation, diagnostics and procedures
- Reduce Healthcare burden by decreasing referrals and timely intervention.
- Proper utilization of available equipments and improvement of quality of life of patients.
- Serve as a platform of teaching and research Centre on Urinary stones.

### BUDGET

An estimated budget which provides a reasonable cushion for a 6-month fellowship for one fellow.

The table below presents the estimated total budget for the 6-month fellowship.

Category	Low Estimate(USD)	High Estimate(USD)
Tuition/Training Fees	2500	4000
Accommodation	1200	1800
Food	900	1500
Transportation	300	600

Communication (SIM, Internet, Phone calls)	120	300
Miscellaneous (Laundry, Leisure, and daily needs)	300	600
Airfare (Round trip)	500	1000
Visa	50	200
Insurance(Travel and Health)	600	1200
Study Materials and Tools	200	500
<b>TOTAL</b>	<b>7670</b>	<b>11,700</b>

The budget for launching and conducting stone workshops will be reviewed timely.

## CONCLUSION

The management of kidney stones at Benjamin Mkapa Hospital presents an opportunity to improve patients' outcomes and reduce burden of renal complications in Tanzania. By adopting a holistic approach encompassing advanced diagnostics, modern treatments options and preventive strategies, the Hospital will establish itself as a center of excellence in Endo-urology care.