

# BOOK OF ABSTRACTS

THEME: INFECTION CONTROL DURING SURGERY IN LIBERIA

SUB-THEMES:

HOSPITAL WASTE DISPOSAL SYSTEM IN LIBERIA PREVENTION OF HOSPITAL-ACQUIRED INFECTIONS GOOD PRACTICES TOWARD ANTIBIOTIC STEWARDSHIP IN LIBERIA

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Prof. Peter S. Coleman - Chairman of the LCPS AGSM 2025

### **Abstracts**

Presenter: Juul M. Bakker

Changes in surgical volume, workforce and infrastructure in Liberia between 2018 and 2024

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**Background:** Surgery is an essential part of health care. In 2018, Liberia faced significant gaps in access to essential surgery characterized by low surgical volumes, a limited workforce, and poor infrastructure. This study evaluated changes between 2018 and 2024.

**Methods:** This retrospective, nationwide study included all healthcare facilities performing surgeries in operating theatres from September 2023 to August 2024. Data were obtained from surgical records, the WHO Surgical Assessment tool, and interviews. Surgical volume, workforce, and infrastructure were analysed and compared to 2018.

**Results:** Surgical facilities increased from 52 to 77, mainly due to more private clinics. Annual surgical volume improved to 28,808 operations. Despite an 18% increase of the surgical volume to 549 per 100,000 population, the unmet surgical need remains high at 89.0%. Large differences exist across counties (149 to 915 per 100,000 population). The surgical workforce grew 61.2% to 461 providers, including 161 specialists (122.3 FTE) and 16 anaesthesia specialists (9.9 FTE), raising SOA density to 2.5 per 100,000 population (1.7 rural, 3.9 urban). The share of surgeries by specialists increased from 26% to 43%. Infrastructure challenges persist, including equipment shortages and lack of trained personnel.

**Discussion:** Despite improvements in facilities, workforce, and surgical volume, access to surgery in Liberia remains inadequate, especially in rural areas. To make further progress, it is necessary to strengthen the surgical system by expanding human resources, including retention and distribution strategies for rural areas and expansion of training programs, and enhancing infrastructure and supply chains.

Presenter: Juul M. Bakker

Obstetric & Gynecologic Surgery in Liberia – Preliminary findings of a nationwide assessment during a one-year period 2023-24

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### Abstract

**Objective:** This study aimed to estimate the annual rate of obstetric and gynaecologic (OBGYN) surgical procedures in Liberia, identify where and by whom these procedures are performed, and detail indications for caesarean sections (CS).

**Methods:** A nationwide retrospective, cross-sectional study was conducted across all public and private Liberian health facilities with an operating theatre performing surgical procedures, between September 2023 and August 2024. Surgical procedures, CS, and deliveries were counted for the full year using delivery and theatre registers. Detailed data – including procedure type, urgency, CS indications, surgical provider, and facility information – were collected from a four-month sample and extrapolated to reflect annual national estimates.

Results: The four-month sample recorded 4,661 OBGYN procedures, yielding an annual estimate of 13,983 procedures. CS accounted for 12,183 (87.1%) of these, followed by myomectomy (4.1%), adnexal surgery (3.1%) and hysterectomy (2.1%). Most procedures (72.1%) occurred in public facilities, with 42.0% in urban (Montserrado) and 58.0 in rural areas. Medical officers performed 45.1% of surgeries, specialists 27.1%, residents 9.0%, and obstetric clinicians 11.2%. In total there were 43 OBGYN specialists, and two counties had none. The national CS rate was estimated at 7.4%, varying widely by county (range 2.8 to 13.2). Leading CS indications were dystocia (30.4%), previous CS (18.5%), non-reassuring foetal status (9.4%), CPD (7.7%), and hypertensive disorders (6.7%). Where recorded, 89.7% of CS were emergencies.

**Conclusion:** The volume and distribution of OBGYN procedures in Liberia indicate inadequate access to obstetric and gynaecologic care and significant geographic inequities. These findings provide an essential baseline and are critical for informing health policy and workforce planning.

Presenter: Dr. Augustine N. J. Fannieh

Abstract Title: Patterns and Determinants of Maternal Mortality at JFK Hospital (January, 2022 – July, 2025): Trends, Causes, and Interventions

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**Background**: Regardless of the cause, maternal mortality—defined by the World Health Organization (WHO) as a woman's death during pregnancy or within 42 days after giving birth—remains a vital metric for assessing the quality of a healthcare system and the general well-being of society. In order to investigate the patterns, causes, and solutions associated with maternal mortality during a recent and crucial time, this study focuses on JFK Hospital, specifically, the Liberia Japanese Friendship Maternity hospital (LJFMH), a major healthcare provider in the country.

**Objective(s):** To examine the trends, primary causes, and efficacy of interventions that were put in place by analyzing the patterns and determinants of maternal mortality at JFK Hospital between January 2022 and July 2025.

**Method:** A Retrospective Cohort study with a quantitative analysis of secondary data drawn from the reviewed of charts of all wo men who suffered maternal deaths between January,2022 to July, 2025. Structured questionnaires were used to extract secondary data from charts. Data collected were entered into Excel 2021 and analysis was done using R 4.2.1.

Results: A total of 268 maternal mortality charts were reviewed (74 in 2022, 73 in 2023, 85 in 2024 and 36 from January to July, 2025). Concerning demographic and Obstestrics characteristics, the median age of 31 years, with the interquartile range (IQR) indicating that the middle 50% of ages fell between 24 and 36 years. The median parity was 2 (IQR: 1-3) and the median gravidity was 3 (IQR: 1.75-5.00). The median gestational age was 38 weeks (IQR: 37-39 weeks), a vast majority of the subjects' education level was unknown (82.5%). Among those with known education, College/University was the highest reported level (7.5%). In terms of marital status, the majority of the subjects were Single (65.7%), compared to 34.3% who were Married. Finally, the Mode of Delivery was distributed relatively evenly, with Caesarean Section, Normal Vaginal Delivery, and subjects who did not deliver each accounting for about one-third of the cases (35.0%, 32.5%, and 32.5%, respectively). Regarding Healthcare access and Management, Antenatal Care (ANC) visits show that over a third (36.1) of the subjects had an Unknown/Don't know number of visits. Among those for whom ANC status was recorded, the highest proportion, 33.3%, had 4 or more visits, while 25.0% had 1-3 visits, and 5.6% had no ANC visits. For Referral Source, most subjects were referred from a Clinic / Health Center (44.4%), followed by Not referred / Not applicable (25.0%), and then Hospital / Major Facility (22.2%). Only a small percentage were referred from Home (8.3%). Investigating the causes and timing of death, the Primary cause of death was most commonly attributed to Hypertensive disorders (30.0%), followed closely by Hemorrhage (25.0%) and Infection/Sepsis (20.0%). Other direct obstetric causes accounted for 15.0%, while indirect/non-obstetric causes made up 10.0%. The Secondary cause of death was most often Hemorrhage/Obstetric (36.1%), followed by Multi-system/Other (22.2%), Respiratory/Circulatory (19.4%), and Infection/Sepsis (13.9%). The Interval from Admission to death shows a severe trend: the large majority of deaths, 71.8%, occurred very quickly, within 0-1 day of admission. Fewer deaths occurred in the 2-3 days category (12.5%) or in 4 days and above (15.6%).

Conclusion: There has been a decreasing trend of maternal mortalities at the LJFMH, especially between 2024 to July, 2025, due to strong leadership, more robust interventions like the decreasing decision-delivery intervals. 50% of ages fell between 24 and 36 years, a vast majority of the subjects' education level was unknown (82.5%), majority of the subjects were Single (65.7%), over a third (36.1) of the subjects had an Unknown/Don't know number of visits, , most subjects were referred from a Clinic / Health Center (44.4%) and the Primary cause of death was most commonly attributed to Hypertensive disorders (30.0%), followed closely by Hemorrhage (25.0%) and Infection/Sepsis (20.0%). Other direct obstetric causes accounted for 15.0%, while indirect/non-obstetric causes made up 10.0%.

Key Words: Maternal mortality, ANC, Hemorrhage, Hypertensive disorders, Referrals

### A Rare Case of Wandering Spleen in the Pelvis: A Case Report

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### Abstract

A wandering spleen is an uncommon clinical condition characterized by excessive mobility and ectopic location of the spleen in the abdomen or pelvis due to laxity or congenital absence of the supporting peritoneal ligaments, particularly the lienorenal and gastrosplenic ligaments. The condition may remain asymptomatic or present with abdominal pain, mass effect, or acute abdomen secondary to torsion of the splenic pedicle. Diagnosis is primarily imaging-based, with ultrasound and computed tomography (CT) demonstrating the absence of the spleen from its normal left upper quadrant location and identifying it in an abnormal position. The condition is most frequently encountered in women of reproductive age with high parity.

**Introduction:** Normally, the spleen resides in the left upper quadrant, anchored by several suspensory ligaments. A wandering spleen results from elongation or developmental defects of these ligaments, leading to excessive mobility. Patients may present asymptomatically with a palpable abdominal or pelvic mass, or with varying degrees of abdominal pain, particularly if torsion occurs. Because of its rarity and nonspecific presentation, diagnosis can be challenging, especially in low-resource settings.

**Case Presentation** A 55-year-old multiparous woman (para 9) from a rural area of Liberia presented with a painless lower abdominal mass and pelvic pressure that had persisted for five years, along with intermittent mild lower abdominal discomfort. Her obstetric history included nine uncomplicated spontaneous vaginal deliveries. She had no significant past medical history.

An initial ultrasound examination at the Imaging Department of John F. Kennedy Medical Center on May 9, 2023, revealed a solid pelvic mass with homogeneous medium-level echogenicity, a visible hilum, and a vascular pedicle on Doppler study. The spleen was not visualized in its normal anatomical location.

A contrast-enhanced CT scan of the abdomen and pelvis confirmed the presence of a homogeneously enhancing splenic tissue located within the pelvis, connected to an elongated vascular pedicle, and confirmed absence of the spleen in the left hypochondriac region.

The patient was scheduled for elective splenectomy after receiving pneumococcal vaccination two weeks prior to surgery. Intraoperative findings revealed a large, mobile spleen located in the pelvis with an elongated vascular pedicle. Splenectomy was successfully performed. The postoperative course was uneventful, and the patient was discharged with regular follow-up visits showing stable recovery.

**Conclusion:** Wandering spleen is a rare but important diagnostic consideration in patients presenting with an unexplained pelvic or abdominal mass. In resource-limited settings, it poses a diagnostic challenge due to restricted access to advanced imaging and limited expertise. It may mimic adnexal masses such as ovarian tumors or present with complications like torsion or hypersplenism, especially in regions where tropical splenomegaly syndrome and malaria are prevalent. Early recognition through imaging and timely surgical intervention are essential to prevent life-threatening complications.

Keywords: Wandering spleen, Ectopic spleen, Splenectomy, Pelvic mass, CT scan, Liberia, Radiology

Presenter: Dr. Emmanuel Gbee

AN UNUSUAL PRESENTATION OF THIRD-DEGREE ATRIOVENTRICULAR BLOCK IN A PATIENT WITH HYPERTROPHIC CARDIOMYOPATHY Emmanuel Gbee¹ Moses Kiwanuka Ssebuliba² Doreen Nakagaayi²

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### Abstract:

Patients with hypertrophic cardiomyopathy (HCM) are commonly affected by ventricular tachyarrhythmias such as ventricular tachycardia, leading to syncope and sudden cardiac death (SCD). Complete atrioventricular (AV) block in patients with HCM is very unusual but may also lead to syncope and SCD. We report a 52-year-old male who presented with recurrent episodes of pre-syncope and effort intolerance. A 12-lead ECG demonstrated deep T waves inversion in the precordial leads with complete AV dissociation and a two-dimensional echocardiogram revealed HCM without resting or provoked left ventricular outflow tract obstruction. The patient initially got a temporary transvenous pacemaker followed by a dual chamber rate responsive pacemaker which was subsequently upgraded to a dual chamber implantable cardioverter defibrillator after further risk stratification. Although rare, there have been few reported cases of HCM complicated by atrioventricular block. This case should alert physicians to the possibility atrioventricular block in patients with HCM which could influence the management outcomes. Key words: Complete AV dissociation, implantable cardioverter defibrillator, hypertrophic cardiomyopathy, sudden cardiac death, syncope

Case A 52-year-old male who had been apparently well prior to his illness presented to our Coronary Care Unit with a year history of recurrent episodes of lightheadedness, dizziness and near collapse. His symptoms were mainly on exertion and had been steadily worsening, interfering with his activities of daily living which made him to seek care at our facility after attempts at other facilities to no avail. He had no history of any medical illness, use of cigarettes, alcohol or other illicit substances. He reports that two of his siblings died in their mid-thirties and forties, but the actual causes of death were not known but from

description they were not sudden and seemed to be long standing illnesses. There was no other reported family history of cardiovascular diseases. On examination he was in a fair general condition, afebrile with no pallor, jaundice, edema or rashes. His cardiovascular exam was significant for bradycardia (35 bpm), a mildly elevated blood pressure of 148/85 mmHg. Apex beat was in the fifth interspace with heart sounds I and II and S4 heard. Other systems were all unremarkable. The baseline ECG showed CHB, with a heart rate of 32 bpm, a ventricular escape rhythm and deep T waves inversion in the precordial and inferior leads, more marked in the precordial leads. A two-dimensional echocardiogram revealed asymmetric hypertrophy with marked mid septal and apical hypertrophy of 30 mm and 31 mm respectively. There was no resting or provoked Left ventricular outflow tract obstruction (LVOT) or mid-cavity gradients and no systolic anterior motion (SAM) of the anterior mitral valve. Left atrium was mildly dilated (41 mm), but cavity dimensions and systolic function (75%) of the left ventricle were within normal limits. Speckle tracking revealed an average global longitudinal strain of 9.9% which was significantly reduced with areas of reduced contractility consistent with areas of hypertrophy on imaging. Based on the ECG and echocardiographic findings, a diagnosis of non-obstructive HCM and CHB was made. However, at this point it was difficult to exclude other causes of left ventricular hypertrophy that are commonly associated with complete heart block such as other infiltrative cardiomyopathies but those were included on the list of possible causes. A decision was made to investigate further but the patient could not afford cardiac magnetic resonance (CMR) imaging at the time. After excluding reversible causes of conduction abnormalities, such as electrolytes abnormalities, thyroid disorders, an initial temporary transvenous pacemaker was inserted due to the patient's instability. He subsequently got a dual chamber pacemaker, rate adaptive (DDDR) after stabilization. A 48-hour holter for further risk stratification only reveal two episodes of non-sustained ventricular tachycardia with the longest of 7 beats per minute, running at a rate of 145 beats per minute with isolated, infrequent premature ventricular complexes with a percentage of less than one. The patient was discharged for review after a week. However, he returns two days later with dizziness on exertion. Physical findings were unremarkable, and he was appropriately pacing on the ECG and the monitor. Device interrogation showed no event since the implantation. The impedance in the right atrium was 546 and that of the right ventricle 975, and with 99% paced, all normal parameters. The patient was started on extended-release metoprolol succinate 25 mg, later uptitrated to 50 mg daily.

The patient later got CMR evaluation which revealed an overall systolic function of 65% with mid wall thickness of 33mm with no LVOT gradient. There was dense focal late gadolinium enhancement (LGE) at the RV insertion points with poorly defined late enhancement in the septum, more circumferentially towards the apex in a mid-wall pattern. Based on the risk stratification of this patient, the mid-wall thickness of 33 millimeters noticed on the CMR evaluation, the dense focal LGE at the RV insertion points with poorly defined LGE in the septum, the two episodes NSVT noticed on Holter monitoring, the decision was made to place a dual chamber ICD to mitigate the risks. The patient takes metoprolol succinate 50 mg daily, and he is currently well with no symptoms reported. He comes for regular outpatient visits as directed.

Conclusion/Take home message Our case faced management challenges including lack of genetic testing which is one of the four pillars of management is such patients; however, we emphasized clinical surveillance in close relations. In addition, imaging services like CMR are not readily available to the general population, which is important in risk stratification and in equivocal situations where there is suboptimal two-dimensional echocardiography images. Lastly, while it is common to encounter tachyarrhythmias in patients with HCM, atrioventricular block is a rare complication, and one should be aware of the possibility of it as a cause of syncope in a patient with HCM. What is more important, is the recognition of the association of AV block in such patients as it alters the approach to the treatment of each condition.

# A Case Series of Penile Fracture at the John F. Kennedy Medical Center, Monrovia, Liberia

**Authors:** Dr. Ayun K. Cassell, Dr. Lavela Kortimai, Dr. Solomane A. Konneh, Dr. Emmanuel Villizu **Affiliation:** Urology Unit, Department of Surgery, John F. Kennedy Medical Center, Monrovia, Liberia

# Background

Penile fracture is a rare but serious urological emergency resulting from rupture of the tunica albuginea of the corpora cavernosa, most often due to blunt trauma during sexual activity. Global incidence is estimated at 1 in 175,000 males, with most cases occurring in sexually active men aged 20–40 years. In Sub-Saharan Africa, underreporting and diagnostic challenges are common due to limited imaging capacity and sociocultural barriers. This study presents a case series from Liberia's main referral hospital, highlighting presentation patterns, management strategies, and outcomes in a resource-limited setting.

# Methods

A retrospective review was conducted of all penile fracture cases managed at the John F. Kennedy Medical Center between **January 2020 and March 2025**. Data collected included patient demographics, mechanism of injury, time to presentation, clinical features, imaging, operative findings, repair techniques, and postoperative outcomes. Cases were analyzed descriptively.

### **Results**

Between January 2020 and March 2025, seven cases of penile fracture were identified at the John F. Kennedy Medical Center. Only three complete charts were available for review. Patients ranged from 22 to 60 years of age (mean 37.3 years). One case was due to sexual intercourse (female-on-top position), while two resulted from accidental trauma and forced penile bending. All patients presented with penile pain, swelling, detumescence, and the characteristic "eggplant deformity." None underwent imaging, and diagnoses were made clinically. Surgical exploration revealed ventrolateral tears of the tunica albuginea in two patients, both associated with urethral injury, and cavernosal contusion without rupture in one. All cases were managed surgically using degloving incision, tunical repair with absorbable sutures, and urethroplasty where required. Postoperatively, one patient achieved full erectile recovery, while two were lost to follow-up within three months.

### Discussion

The clinical profile mirrors regional data from West and Central Africa, where penile fracture commonly results from vigorous intercourse or accidental trauma. The lack of imaging facilities did not hinder diagnosis, as clinical assessment remained reliable. Early surgical repair produced favorable functional outcomes, consistent with international guidelines. However, **loss to follow-up** and limited postoperative surveillance impede long-term outcome assessment. Establishing structured follow-up systems and digital patient tracking could enhance postoperative care and data collection.

### Conclusion

Penile fracture, though rare, presents with consistent clinical features and warrants prompt surgical intervention to preserve erectile function. The Liberian experience underscores the feasibility of clinical diagnosis and surgical management even in resource-constrained settings. Strengthening postoperative monitoring and improving health information systems are vital to assessing long-term outcomes and optimizing care.

# **Keywords:**

Penile fracture, surgical repair, tunica albuginea rupture, urethral injury,

Presenter: Dr. Solomane A. Konneh

Prostate Cancer Diagnosis and Care Pathways in Liberia: Regional Insights and Priorities

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### **Background**

Prostate cancer is the most prevalent male malignancy in Liberia, with an incidence of 38.6 per 100,000 and mortality of 22.4 per 100,000 men. Despite this burden, diagnostic capacity remains limited due to low national health expenditure, high out-of-pocket costs, and limited universal health coverage. Similar to trends across Sub-Saharan Africa, late-stage presentation and inequities in access to screening, biopsy, and treatment persist. This study describes local institutional patterns of prostate cancer diagnosis at the John F. Kennedy (JFK) Medical Center and contextualizes findings within regional African data.

# Methods

A retrospective institutional review was conducted at JFK Medical Center from **July 31, 2024 to June 30, 2025**. Data from outpatient logs, laboratory registers, and histopathology reports were analyzed to assess clinical presentations, prostate-specific antigen (PSA) distribution, biopsy techniques, and histopathologic findings. Comparative literature from Ghana, Nigeria, and Kenya was reviewed to identify shared diagnostic barriers and system priorities.

# Results

Among **631 patients** evaluated, **460 (74.3%)** were male. Chart reviews (n=230) showed that **lower urinary tract symptoms (LUTS)** (89.1%), **suprapubic pain** (78.3%), and **acute urinary retention** (37.0%) were the leading presentations. Digital rectal examination revealed nodularity or fixation in **17.4%** of men.

PSA testing (n=305) showed that **25%** of patients had levels >20 ng/mL and **13%** exceeded 100 ng/mL. Due to limited imaging infrastructure, **all 139 biopsies** were performed using digital-guided methods without TRUS or MRI support.

Histopathology revealed adenocarcinoma in 34%, nodular hyperplasia in 58%, and PIN in 6%. Among adenocarcinoma cases, 29% had Gleason 8 (4+4) and >30% had scores ≥8, indicating aggressive disease at diagnosis.

# Discussion

The findings mirror regional African patterns of late presentation, limited biopsy guidance, and aggressive tumor biology. Infrastructural gaps—particularly the absence of TRUS, MRI, and standardized biopsy protocols—limit diagnostic accuracy and staging. The data underscore the urgency of national investments in imaging equipment, pathology services, and urologic oncology training. Community-level factors such as poor awareness, reliance on traditional medicine, and delayed health-seeking behavior further exacerbate late detection. Strengthening public education, establishing national biopsy standards, and integrating prostate cancer screening into Liberia's Universal Health Coverage (UHC) framework are critical next steps.

# Conclusion

Prostate cancer in Liberia demonstrates a high burden of advanced disease and aggressive histopathology at presentation, reflecting both system-level and community barriers. Strengthening diagnostic infrastructure, standardizing biopsy practices, and building multidisciplinary cancer teams will be key to improving outcomes. Regional collaboration and inclusion of prostate cancer care in Liberia's national cancer control strategy are urgently needed.

### **Keywords:**

diagnosis, histopathology, Prostate cancer, biopsy, urologic oncology,

Presenter: Dr. Richard Ohene-Darkoh

Abstract

Title-Enhancing Patient Care with Trusted Solutions: Denk Pharma Product Update & Expansion Overview

Authors and Affiliations- Dr Richard Ohene-Darkoh affiliation -Denk Pharma GmBH.CO.KG

Background / Introduction-For over 75 years, Denk Pharma has stood for "Quality made in Germany" pharmaceuticals. Our products are available in more than 80 countries worldwide, providing patients with the same premium quality as in German pharmacies.

We are committed to quality and safety by ensuring our pharmaceuticals and dietary supplements are approved, manufactured, and quality-checked in Germany, according to our promise "Quality for your health."

Our purpose, "We create access to healing", drives us to enable patients worldwide to access healing. We understand the importance of health and well-being and are passionately dedicated to offering premium quality products that help people live healthy lives.

Objective(s)-To enhance Patient care with Denk Pharma Products

Case Presentation / Methodology-Denk Pharma Product overview / Pain management / management of HSV infections.

Results / Findings-Denk Products are the Key to quality medicines made in Germany for all health needs .

Conclusion

Keywords -Denk Pharma Quality medicine , Patient Care

Presenter: Dr. Charles O. Oguni

# MICROBIAL PROFILE AND CLINICAL OUTCOMES OF NEONATAL SEPSIS IN A TERTIARY HOSPITAL IN MONROVIA, LIBERIA

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# Background:

Despite global declines in neonatal mortality, infection continues to account for nearly half of deaths in high-mortality regions. Understanding the burden, clinical presentation, microbial pattern, and antibiogram of neonatal sepsis is critical to developing effective, context-specific prevention and management strategies.

### Objective:

To determine the incidence, microbial pattern, antibiotic sensitivities, and outcomes of neonatal sepsis among admissions to the neonatal unit at JFK Medical Center, over a six-month period.

### Design/Methods:

We conducted a prospective observational study of all neonates admitted between April and September 2020. Infants with clinical features of sepsis underwent sepsis screening, including blood, cerebrospinal fluid, and urine cultures. Demographic and perinatal data were collected, and cases were classified as culture-positive or culture-negative. Incidence rates were calculated using live birth data from the study facility.

### Results:

Of 473 neonatal admissions, 269 (56.9%) were screened for sepsis. Bacterial pathogens were isolated in 56 neonates (20.8%). Gram-positive microbes were 69.6% while Gram-negative organisms were 30.4%. Blood cultures were positive in 50 cases, cerebrospinal fluid in six, and two infants had concurrent bloodstream and urinary tract infections.

The incidence of culture-confirmed sepsis was 6.22 per 1,000 live births.

Most commonly isolated pathogens were coagulase-negative Staphylococcus (35.7%), *Staphylococcus aureus* (30.4%), *Escherichia coli* (7.1%), and *Citrobacter freundii* (5.4%). There were 2 cases of MRSA and 2 cases of ESBL microbes.

Most of the isolates were susceptible to carbapenems (70.4%), fluoroquinolones (67.3%), clindamycin (58.9%), and gentamicin (50.3%).

Of the culture-positive patients 12.5% died while 20% of the culture-negative neonates died.

# **Conclusions:**

Microbial sensitivity patterns indicated significant resistance to ampicillin and the cephalosporins, underscoring the need to deemphasize these drugs as empirical first line medications for neonatal sepsis.

This study adds evidence from a low-resource West African setting, contributing to the global understanding of neonatal sepsis epidemiology and informing strategies to achieve further reductions in preventable newborn deaths.

Presenter: Dr. Robert A. Marrah

PARAPNEUMONIC EFFUSIONS CLUSTER: A 6-MONTH RETROSPECTIVE REVIEW OF PEDIATRIC WARD ADMISSIONS IN THE JFK MEDICAL CENTER, MONROVIA

Robert A. Marrah, Beth Z. Munford, Charles O. Oguni

Department of Pediatrics, JFK Medical Center, Monrovia, Liberia.

**ABSTRACT** 

**Introduction:** Despite vaccinations of the at-risk population, admissions for tuberculous continue to be on the increase. Admissions for parapneumonic effusions recorded a cluster high in the first half of 2025. It was therefore necessary to review

the number and type of admissions of patients into the pediatric ward of JFK Medical Center, particularly from parapneumonic effusions.

**Method:** A retrospective review of admission records of the Pediatric Ward from January to June 2025 was done. The top ten diagnoses were noted, including the number and distribution of tuberculosis and parapneumonic effusions. The data was analyzed by a simple descriptive analysis.

**Result:** 282 patients were admitted during this 6-month study period (male:female ratio, 1.4:1). Bronchopneumonia was topmost (35 cases; 12.4%). Tuberculosis was diagnosed in 13 patients (4.6%) with five parapneumonic effusions. Seven cases (2.5%) of generalized (non-neonatal) tetanus were also admitted during this period.

**Conclusion:** Tuberculosis (and parapneumonic effusions) are seemingly on the increase once again. Public health awareness campaigns and contact tracing efforts should be intensified to break the transmission chain. There is need to revisit the vaccination processes from the maintenance of the cold chain to the vaccination procedures at the respective health contact sites. A more robust study is needed to understand the gravity of these findings in a larger setting.

Presenter: Dr. Weade A. Cox

# VACCINATION STATUS OF PATIENTS (0-10 YEARS) ADMITTED INTO THE PEDIATRIC WARD: A 3-MONTH PROSPECTIVE ANALYSIS

Weade A. Cox, Rukiatu Sheriff-Coleman, Charles O. Oguni

Department of Pediatrics, JFK Medical Center, Monrovia, LIBERIA

### **ABSTRACT**

**Background:** The prevention of the childhood killer diseases hinges on immunization of the at-risk population through stepwise and planned vaccination processes. Many parents may not access this vital service as planned, thereby placing their wards at risk of vaccine-preventable diseases. Also, despite receiving the vaccines, there may be less-than-expected protection for the vaccinated.

**Objectives:** Primary objective of this study is to identify the percentage of patients aged 0 to 10 years admitted into Pediatric Ward, who did not complete their vaccine schedules. Secondary objectives are (1). To ascertain the number of subjects aged 0 to 10 years admitted in the Pediatric Ward in whom a BCG scar could not be demonstrated. (2). To identify any relationship between maternal demographics and paucity of vaccination.

**Method:** The caregivers of the patients who were admitted into the Pediatric Ward from June to August 2025 were interviewed (using a structured questionnaire) after a verbal consent was obtained. The demographic data of the patients and caregivers were collected, and the vaccination histories of the patients were also collected. The data was analyzed using simple descriptive analysis.

**Results:** A total of 111 patients were included in the study. 44.14% of children missed at least one vaccine, with 7.21% missing all the vaccines. 89.19% received BCG vaccine, but a scar was not visible in 37.37% of the study patients. 56.76% of those with no scar were from private health facilities and 43.24% were from government facilities. Maternal demographics indicated that primiparity, single motherhood, low maternal education, and unemployment were maternal factors that impacted negatively on vaccinations.

# Limitation / Recommendation / Conclusion:

- 1. Sample size was small and limited to 0-10 years only
- 2. Need for a larger study (hospital- and community-based)
- 3. Need to study relationship between BCG scar and tuberculin skin test
- 4. Revisit vaccine storage & the Cold Chain
- 5. While not directly indicative of vaccine failure, this large percentage of absent BCG scar is disconcerting.

# Case Report:

UNILATERAL LOWER LIMB LYMPHOEDEMA – RESURGENCE OF A NEGLECTED TROPICAL DISEASE (LYMPHATIC FILARIASIS): CASE REPORT OF TWO SERIAL PRESENTATIONS

Famah Sumo-Giddings, Charles O. Oguni

Department of Pediatrics, JFK Medical Center, Monrovia, Liberia.

### **BACKGROUND**

Lymphatic filariasis is one of the many neglected tropical diseases that silently maims victims in low and middle income countries. It leads to filarial lymphangitis and progresses to elephantiasis, a painful and profoundly disfiguring disease that affects over 120 million people in 72 countries, incapacitates and disfigures 40 million and leaves major social and economic impact (stigma, mental distress, and poverty) in its trail.

### **CASE REPORTS:**

Case 1: FJF, a 14-year-old female was first seen in the Pediatric OPD in May 2025 with a 6-month history of left lower limb swelling that was initially non-painful until 2 months prior to presentation. Patient had left inguinal lymphadenopathy. Patient had asymmetrical lower limbs with a mildly tender, mildly pitting, swelling of the left lower limb and differential dimensions. CBC showed marked eosinophilia of  $12.10 \times 10^9$ /L. Left lower limb ultrasound scan revealed left-sided lymphadenopathy from the femoral to the retroperitoneal regions.

Case 2: 10-year-old SRK (female) presented in July 2025 with a 2-week history of right leg swelling and heaviness, with minimal pain. Patient was fairly well nourished, not pale, anicteric, and afebrile. He had mildly tender inguinal lymphadenopathy, mostly on the right. Upper limbs were bilaterally symmetrical but lower limbs were asymmetrical. The right lower limb was mildly tender with no obvious skin changes. There was non-pitting pedal edema.

CBC showed eosinophilia and ultrasonographic findings of right femoral lymphadenopathy and no arterial or venous anomalies.

# **CONCLUSION:**

The resurgence of some NTDs means emphasis has to be placed on simple and affordable means of eradication: general health education, mass drug administration, laboratory support services, and periodic community outreach.

Presenter: Dr. Eka Tally

### **Case Report**

MULTIFOCAL CUTANEOUS LARVA MIGRANS IN TWO PATIENTS PRESENTING AT THE OUTPATIENT DEPARTMENT OF JFK MEDICAL CENTER, LIBERIA

Eka Tally, Famah Sumo-Giddings, Charles Oyom Oguni

Department of Pediatrics, JFK Medical Center, Monrovia.

### ABSTRACT:

Helminthic infections are the second most devastating tropical disease after malaria, with soil-transmitted helminths infecting an estimated 24% of the world's population. Cutaneous larva migrans and cutaneous larva currens are various manifestations of hookworm larvae that penetrate the skin and form serpentine linear tracts. This paper presents case reports of two toddlers with cutaneous larva migrans who were seen at the pediatric outpatient clinic after failure of local interventions at eradicating the unknown illness.

# THE CASES

Case 1: PFJ, a 16-month-old, fairly well-nourished female, was seen on May 29, 2025, in the pediatric OPD with a 3-week history of cough and itchy rashes on multiple sites on the skin. Examination revealed tortuous, thread-like, serpentine tracts of various patterns and designs on the left iliac fossa, the medial left knee, lateral distal third of the left leg, dorsum of the left foot, mediolateral aspect of the right buttock, and the inferior aspect of the right buttock. Scratch marks were visible in the left iliac and gluteal lesions, with ulcers and scarring. Antifungal creams and mentholated creams were applied with no favorable outcome.

Case 2: 16-month-old TW, male, presented on September 2, 2025, with a 6-day history of itchy skin with clear fluid discharge on scratching; not associated with fever. The infant was fairly well-nourished, with distinct serpiginous, raised tracks on the right foot, right leg (proximal third), and left foot.

### **CONCLUSION:**

Prevention of CLM can be achieved by avoiding contact with contaminated soil, wearing shoes when walking on sandy areas where animals may defecate, keeping pets healthy by regularly treating dogs and cats with anthelmintic drugs to prevent hookworm infections, hygiene-consciousness by washing hands thoroughly after being in potentially contaminated areas.

Presenter: Dr. Jerry Brown

Abstract: Case report

Title: A case report on Infection prevention and control measures during epidemics for emergency surgical interventions.

# Background:

This case report discusses the safe surgical techniques used during an emergency obstetric surgical intervention on a positive Ebola patient presenting with obstructed labor and history of two previous cesarean sections.

### Case Presentation:

Our patient is a 33-year-old female presented at the obstetric ward with a history of lower back pains and lower abdominal pains for twenty-four hours after amenorrhea for nine months. She also complains about one fever episode and vomited once before arrival at the hospital. Past medical history revealed two previous cesarean sections for obstructed labor. Examination revealed a short stature female about 4 to 5 feet tall in obvious painful distress with strong labor contractions presenting every ten to fifteen minutes. Cervix was four centimeters dilated and thick. An impression of Obstructed labor was made and previous cesarean sections. Samples were collected for investigations including samples for Ebola testing. All other laboratory results were unremarkable except the Ebola result which was pending. Surgical intervention was done, under spinal anesthesia and a live female infant was delivered through a Pfannenstiel incision. Intraoperatively following closure of the uterus in two layers, the uterus did not contract despite administering all possible medications and no retention of placenta products. A sub total hysterectomy was done since the uterus continues to be flaccid as patients continue to bleed. The patient went into shock. She was resuscitated with IV fluids and one unit of whole blood, but patient remained restless. The abdomen was closed with no evidence of coagulopathy. The patient was isolated on the ward pending Ebola result. Addition two units of whole blood was transfused but patient died three hours later on the ward. The Ebola result came 24 hours later and said to be positive for Ebola. The baby was tested positive for Ebola and transferred to the Ebola Unit for care. None of the staff involve in the care of the patient got infected with Ebola and none of the staff was placed on quarantine. All staff beginning with the midwife, cleaner, OR staff and laundry were under daily observation with temperature check for two weeks. Ebola testing was done one week later for those involved and none were tested positive.

# Discussion and Conclusion:

This case highlights how surgical interventions can safely be conducted during major epidemics involving highly infectious diseases. How sterile technique during surgery is also key to prevention of the spread of infection during epidemics like Ebola.

Presenter: Dr. J. Nutai Kolleh

Title: Descriptive Epidemiology of Confirmed Mpox Cases in Montserrado County, Liberia (February-August 2025)

Authors: Dr. J. Nutai Kolleh, Dr. Jestina S. Hunter Tiabor, Dr John S. Doedeh and Dr. Cecelia Woods Chennonway

Affiliation: Montserrado County Health Team

### Introduction:

Mpox (formerly known as monkeypox) is a zoonotic disease caused by the *Mpox virus*, a member of the *Orthopoxvirus* genus in the *Poxviridae* family. The disease gained global prominence during the 2022 multi-country outbreak (1,2) and remains a notifiable condition in Liberia (5,6). Understanding its epidemiological profile is essential for guiding timely public health responses. This study describes the burden, demographic distribution, temporal trends, and geographic spread of laboratory-confirmed Mpox cases in Montserrado County between February and August 2025.

### Methods:

A retrospective descriptive study was conducted using surveillance data from the Montserrado County Health Team. The dataset included all laboratory-confirmed Mpox cases reported between February 1 and August 31, 2025. Key variables collected included age, sex, occupation, symptoms, outcomes, and district of residence. Data were entered into Excel 2021 and analyzed using descriptive statistics. Categorical variables were summarized with frequencies, percentages and trends, while continuous variables were described using measures of central tendency and dispersion.

### Results:

A total of 392 confirmed Mpox cases were recorded. The median age was 30 years (IQR: 16), indicating that half of the patients were between approximately 22 and 38 years. The most affected age group was 30–44 years (43% n=165). The male-to-female ratio was 1.78:1. Students represented the largest occupational group (33%, n=131). Cases were reported across all seven districts, though 95% were concentrated in Bushrod Island (38%), Commonwealth (32%), and Central Monrovia (25%). Monthly case counts sharply increased from May (13%) through August (33%), reflecting trends also reported in recent African outbreaks (2–4,7). Fever and rash were the most frequent symptoms, followed by body pain, sore throat, dysphagia, back pain, and lymphadenopathy—consistent with clinical features described in Liberia and other African countries (1,3,4).

### **Conclusion:**

The study highlights a surge of Mpox cases in Montserrado County, disproportionately affecting males aged 30–44 years. The concentration of cases in three districts and the marked rise from May to August signal active transmission. Strengthened surveillance, targeted risk communication, and rapid public health interventions are urgently needed to contain further spread (5–8).

Presenter: Dr. Sree Sweta R.

Case Report

Authors: Dr Niranjan Pehere, Dr Sree Sweta R.

LV-Prasad Department/Faculty of Ophthalmology JFK Medical Center

Myriad of corneal findings and an absolute mimicker! - An interesting case report on MPOX Keratitis

Abstract

Introduction

MPOX is a zoonotic infection, caused by a DNA virus that belongs to the Poxviridae family of the genus Orthopoxvirus that usually affects humans and animals with 12 identified members. The most well-known member is the variola virus, which causes smallpox & others includes MPXV. It was first discovered in 1958 in a monkey during vaccine research and has been reported in several reservoirs, especially in rodents and other small mammal species. On November 28, 2022, the World Health Organization (WHO) suggested using the word "mpox" as a replacement for "monkeypox". Previously although it had been reported as a rare zoonotic infection spread from infected rodents other means such as Long-term close contact, respiratory droplets, contaminated personal items, and direct contact with rash regions are some of the mediators of transmission. Sexual contact and a role of Men sex with Men (MSM) Mode of transmission has also been reported in literature.

Brief case history-

A 39 Y M Presented with complaints of pain, redness, watering, decreased vision in the RE since 1 Week. History of being diagnosed as positive for retroviral disease & hepatitis 3 months back for which he was put on medication. History of being affected with Monkey-pox 1 month back for which he was admitted in quarantine center, took complete therapy & was discharged a week ago. He had multiple visits to the eye clinic spanning over two months mostly which began as bi- weekly visits which later became weekly once visits towards the end. All through the course the left eye remained uninvolved. In the first visit in the RE, His vision was 20/320 & IOP was 29 mm hg. He had a peripheral stromal Infiltrate superiorly from 11-2 CH with overlying linear epithelial defect & diffuse SPKS arranged in linear pattern. He was diagnosed RE PUK with Anterior Uveitis & was put on medications steroid, antibiotic, cycloplegic and AGM. In the consecutive visits, the Limbal Infiltrate extending superiorly from 11-2 CH with Crescentic epithelial defect evolved into a dendritic pattern and later a Geographic ulcer with 70% ectasia & had worsened. He was put on anti-viral topical & systemic medications to which there wasn't much response. In the next visit eventually Trifluridine Eye Drops eye drops (procured form India) was added in view of suspiscion of MPOX Keratitis as a differential diagnosis. In order to prevent the risk of further corneal melt, Superficial keratectomy was done & TA was applied to the ectatic cornea. The endothelial exudates appeared to be resolving slowly & eventually the eye became more quiet and slowly leash of blood vessels could be appreciated superiorly extending to the gutter of the PUK. The vision remained at CFCF however the infection subsided well with scarring and consolidation of the margins.

# Conclusion

In countries like Liberia where it might be difficult to get a highly equipped laboratory and to confirm the causative etiology without conjunctival biopsy and a PCR, Clinical suspicion can always come in handy. As goes the famous quote- "The Eyes cannot see what the brain doesn't know". It is a huge mimicker of HSK PUK & keratouveitis. Although MPOX Keratitis had a long course it behaved like mooren's ulcer towards the end. Lack of enough knowledge on this clinical entity and similarity to HSV & inability to distinguish it from other varieties of PUK make it an absolute necessity to do a case report and so that this report can helps increase the knowledge of mpox keratitis among ophthalmologists.

Presenter: Dr. Kodjo N. Tehoungue

A Rare Cause of Extensive Intracranial Calcifications: Case Series with Presumptive Diagnosis of Fahr's Disease in a Resource-Limited Setting

Running Title: Fahr's Disease – Case Series from Liberia

Authors:

Kebede Gofer Gebretsadik, MD1\*, MD2, Genetu Belay Dargie, MD1, Isaac Kekulah, Kodjo Nashapolor Tehoungue, MD1

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Presenter: Kodjo Nashapolor Tehoungue, MD

# **Abstract**

Fahr's disease is a rare neurodegenerative disorder characterized by abnormal calcium deposition within the basal ganglia and other brain regions. In low-resource settings, diagnosis often relies heavily on imaging due to limited access to biochemical and genetic studies. This case series describes five patients presenting with pathological intracranial calcifications consistent with Fahr's disease, highlighting the diagnostic role of CT in resource-limited environments.

# Conclusion

In resource-limited settings, Fahr's disease should be suspected when CT demonstrates bilateral, symmetric intracranial calcifications involving the basal ganglia and related structures, particularly in patients with seizures, neuropsychiatric symptoms, or movement disorders. While confirmatory biochemical and genetic tests are ideal, radiologic diagnosis remains central in such contexts.

Keywords: Fahr's disease; Basal ganglia calcification; Computed tomography; Neurodegeneration; Case report; Liberia

Presenter: Dr. Priscilla A. Gborlor

Title: Prevalence and Perinatal Outcomes of Placenta Abruptio at the J.F.K Maternity Center

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Presenting Author: Dr. Priscilla A. Gborlor

**Objectives:** The objectives of this study were to describe the prevalence and perinatal outcomes of placenta abruption at the J.F.K Maternity Center

**METHODS:** A retrospective cross-sectional study was conducted from Jun 2024 – Jun 2025 of patients admitted for placenta abruptio. Variables such as patients' age, gestational age, mode of delivery, perinatal outcomes, blood lose etc., were entered into excel spread sheet and a simple descriptive analysis was done.

**RESULTS:** 3050 patients were admitted during the period under review of which 63 were cases of placenta abruption, hance the prevalence was found to be 2%. The mean maternal age was 28.3 years and the mean gestational age was 34.6weeks. Majority (61%) of cases had multiparity and the perinatal mortality and morbidity rates were 57% and 7% respectively. Majority of the patients were delivered by cesarean section and severe and massive blood loss was identified in 21(34%) and 6(10%) respectively.

**CONCLUSION:** The prevalence of placenta abruptio at the J.F.K Maternity Center is comparable to findings from other studies. It is a major contributor to perinatal morbidity and mortality but the adverse outcomes can be avoided with timely intervention.

Presenter: Dr. Edlyn E. Kanu

Title: A Review of Preterm Pre Labor Rupture of Membrane at the J.F. Kennedy Maternity Center

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Presenting Author: Edlyn E. Kanu

**Objectives:** The objectives of this study are to determine the prevalence of pre term pre labor rupture of membranes, identify associated risk factors, as well as describe its impact on feto- neonatal outcomes.

**METHODS:** A retrospective study was conducted from Jun 2024 – Jun 2025 of patients admitted for pre term pre labor rupture of membranes. Variables such as age, parity, gravidity, history of Genito-urinary (GUTI) trat infection, comorbidity on presentation and fetal outcome were gathered onto excel spread sheet and analyzed.

**RESULTS:** One hundred seventy-four (174) cases of PPROM were identified. The mean maternal age and gestational were 25.5 years and 34.4 weeks respectively. The prevalence was found to be 5.7%. About 113 (65%) of the patients had history of genital-urinary tract infections (GUTIs) while 121 (70%) had at least one comorbidity or complication on presentation. The fetoneonatal (perinatal) mortality rate was 16.7%. Lower gestational age and having at least one comorbidity or complication adversely significantly affected feto-neonatal outcomes.

**CONCLUSION:** The prevalence of PPROM at the JFK Maternity center was similar to other findings in the subregion. Most patients had history of GUTIs. Gestational age at presentation and comorbidity or complication are major contributors to PPROM associated perinatal mortality.

Presenter: Prof. Inne Borel Rinkes

Title: Supporting residency training in Liberia by surgical teams from the Netherlands

<u>Short description:</u> In this presentation, I shall address the reasons underlying this educational program, the conditions necessary to make such a project work, and the content of the first four visits.

In addition, I will briefly introduce the team-members who are presently staffing a course in Endocrine Surgery in close collaboration with prof. Coleman and dr Mabanza from JFK hospital.

Presenter: Prof. Jaap Hamming

Title: Moderns insights in Quality and Safety of Surgical Care

<u>Short description:</u> Quality of Surgical Care is traditionally reviewed by index parameters like mortality of operations and surgical complications. Moderns safety perspectives emphasizes to review surgical also in the light of success. Also how to deal with professionals who experience serious patient safety incidents in a Just Culture.

Presenter: Dr. Jonathan Vas Nunes

Title: Surgical wound care and high antimicrobial resistance in Sierra Leone

<u>Short description:</u> Several recent studies from Sierra Leone will be discussed showing that severe wounds and burns are prevalent and often untreated, causing a significant burden on the population. Data from the rural 'Masanga Hospital' on skin and soft tissue pathogens and blood cultures and their high antimicrobial resistance patterns to commonly used antibiotics will be shared.

Presenter: Dr. Joseph N. Siaway

**ABSTRACT** 

Title: Prognostic Role of NT-proBNP in Acute Heart Failure Patients Admitted to JFK Medical Center, Liberia

Authors:

- 1. Dr. Muhammad Awwal Abdullahi1
- Dr. Isaac Kekulah1
- 3. Dr. Yassah Barclay-Korboi1
- 4. Dr. Joseph N. Siaway1
- 5. Dr. Emmanuel Ekyinabah1

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### Background:

N-terminal pro-B-type natriuretic peptide (NT-proBNP) is a well-established biomarker for the diagnosis and prognostication of acute heart failure. Elevated levels correlate with disease severity and adverse outcomes. However, NT-proBNP testing is not widely available in Liberia due to cost constraints, and no prior studies have evaluated its role in heart failure patients in the country.

# Objective:

To evaluate the prognostic significance of NT-proBNP among patients admitted with acute heart failure at John F. Kennedy Medical Center, Liberia.

### Methods:

We conducted a prospective observational study over a four-month period (April– August 2025). Fifty-four patients admitted with acute heart failure were included. NT- proBNP levels were measured at admission (n = 42) and discharge (n = 23). Demographic, clinical, and echocardiographic data were collected. Statistical analyses included the Mann–Whitney U test for mortality comparisons, Wilcoxon signed-rank test for paired admission–discharge comparisons, Spearman's correlation, and binary logistic regression for outcome prediction.

### Results:

The mean age of patients was 57 years, and 61% were male. Median NT-proBNP at admission was 7,097 pg/mL (IQR 2,826–23,656), significantly decreasing to 3,068 pg/mL (IQR 1,784–6,973) at discharge (Wilcoxon Z = -3.44, p = 0.001). Among 41 patients with outcome data, 8 (19.5%) died. Those who died had significantly higher admission NT-proBNP compared with survivors (median ranks 31.3 vs. 18.5, Mann– Whitney U = 50.0, p = 0.006). Logistic regression confirmed admission NT-proBNP as an independent predictor of mortality ( $\chi^2 = 11.2$ , p = 0.001), with good model fit (Hosmer– Lemeshow p = 0.503). NT-proBNP showed a negative, though non-significant, correlation with left ventricular ejection fraction ( $\rho = -0.36$ , p = 0.166).

### Conclusion:

In this first study of NT-proBNP in heart failure patients in Liberia, elevated admission levels were strongly associated with inhospital mortality, while significant reductions during hospitalization reflected treatment response. These findings highlight the potential clinical value of NT-proBNP testing in resource-limited settings, despite cost barriers, to guide risk stratification and management of acute heart failure. \*\*\*

Presenter: Dr. Celina Zayzay

Comorbidity Patterns among Hypertensive Patients Attending Outpatient Clinics at JFK Hospital, Liberia (January-June 2025)

Authors: Dr. Celina Zayzay. Dr. Bernice Paye, Dr. Amelia Krah, Dr. Agnes Garbo

Affiliations: John F. Kennedy Medical Center, Faculty of Community Health-LCPS

# **Background**

Hypertension is a major public health concern globally and one of the leading risk factors for cardiovascular disease, stroke, and kidney failure. In sub-Saharan Africa, hypertension often coexists with both non-communicable diseases (such as diabetes) and

infectious diseases (such as malaria, TB, and HIV). These overlapping comorbidities complicate patient management and increase the burden on health systems.

Understanding the comorbidity patterns among hypertensive patients is essential for designing integrated care models. At JFK Hospital, a tertiary facility in Monrovia, preliminary reviews suggest that many hypertensive patients present with additional conditions, but systematic documentation and analysis have been limited.

# Objective

To describe the patterns & Prevalence of comorbidities among hypertensive patients attending outpatient clinics at JFK Hospital.

# Methods

A retrospective cross-sectional study was conducted by reviewing outpatient clinic records of hypertensive patients seen between January and June 2025. A structured questionnaire was used to extract data from patient's charts. Data extracted from the charts were entered into an Excel 2021 spreadsheet and analyzed using the various variables: socio-demographic characteristics, blood pressure status, and presence of comorbidities such as diabetes mellitus, chronic kidney disease, dyslipidemia, cardiovascular disease, CVA, etc. Descriptive statistics were used to summarize the prevalence of comorbidities, and associations with age, sex, and other variables were explored.

### Results:

A total of 224 hypertensive patients who attended the JFK hospital out-patient clinics between January – June 2025 charts were reviewed during the study. The mean age was 53.3 years with 52% of the patients being female. The duration of hypertension diagnosis was not stated in majority (66%) of the patients, 25% had been diagnosed between 1 – 5 years and 2% between 6-10 years. Majority (59%) of the patients had hypertension with no recorded comorbidity. Dyslipidemia was the most common comorbidity affecting 66% of patients with comorbidity, followed by diabetes (19%) and CVA (5%). Other less frequent comorbidities included degenerative disc disease (5%) and heart failure (4%). Overall, 31% patients had at least one comorbidity, while 12% had two or more comorbid conditions. The most frequent combination was hypertension with dyslipidemia (66%), followed by hypertension with diabetes (19%). A triad of hypertension, dyslipidemia, and diabetes was observed in 10% of patients. Patients aged  $\geq$  60 years were more likely to have multiple comorbidities compared to those  $\leq$  60 years. Higher prevalence of dyslipidemia was seen among female patients compared to male patients.

# Conclusion

Hypertensive patients at JFKMC outpatient clinic commonly present with significant comorbidities, particularly dyslipidemia, diabetes, chronic kidney disease, heart failure and stroke. In this retrospective cross-sectional review of hypertensive outpatients at JFK hospital, nearly 43% of patients presented with at least one additional chronic disease, and a significant proportion had multiple comorbidities. Metabolic disorders such as dyslipidemia and diabetes were especially common, while CVA, stroke, heart failure and degenerative disease of the spine, frequently cooccurred. This clustering pattern underscores the importance of multidisciplinary management approaches and tailored follow-up strategies that extends beyond blood pressure control. The fact that over 50% of the patients had no recorded comorbidity highlights the need for strengthening and enhancing routine screening for comorbidities, which would improve the quality of care and outcomes. Although the study is limited by its retrospective design, and reliance on available medical records, it provides valuable baseline data to guide clinical service planning, resource allocation and future prospective research on multimorbidity in hypertension care.

Key words: Hypertension, comorbidity, outpatient clinic, Liberia, retrospective cross-sectional study

Abdominal Cocoon Syndrome: A Case Report from James Jenkins Dossen Hospital, Harper, Maryland County, Liberia.

### Authors

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Presenting Author: G. Swill-Luogon, MD

# **Background**

Abdominal cocoon syndrome, also known as idiopathic sclerosing encapsulating peritonitis (SEP), is a rare cause of small-bowel obstruction in which intestinal loops are ensheathed by a dense fibro-collagenous membrane. First described in 1907 and named "abdominal cocoon" by Foo et al. in 1978, SEP is classified as primary (idiopathic) or secondary to conditions such as tuberculosis, chronic peritoneal inflammation, or prior surgery. Because its symptoms are nonspecific and advanced imaging is often unavailable in low-resource settings, diagnosis is frequently made intra-operatively.

### **Case Presentation**

A 40-year-old man presented with three weeks of progressive abdominal distension, bilious vomiting, obstipation, and anorexia. He had no comorbidities, surgical history, or known tuberculosis. Examination showed distension, tenderness, and absent bowel sounds; plain radiography suggested obstruction. After resuscitation, exploratory laparotomy revealed a thick fibrous membrane encasing most bowel loops, consistent with abdominal cocoon syndrome. The membrane was left intact and the abdomen closed. Recovery was uneventful, and the patient was discharged on post-operative day 5. He was later started on anti-tuberculous therapy for suspected tuberculous peritonitis but re-presented three months later with recurrent obstruction. Repeat laparotomy revealed extensive grade IV adhesions; adhesiolysis was performed with satisfactory recovery. Long-term management included re-initiation of anti-TB treatment.

### Conclusion

This case highlights the diagnostic and therapeutic challenges of abdominal cocoon syndrome in resource-limited environments. Where diagnostic imaging is restricted and risk factors are absent, timely surgical exploration remains both diagnostic and therapeutic. Reporting such cases from rural sub-Saharan Africa broadens the global understanding of this rare entity and underscores the need for enhanced diagnostic capacity in low-income surgical settings.

TITLE: Culture and Sensitivity Patterns in Neonates and Children at the John F Kennedy Medical Centre Monrovia Liberia.

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### **Background**

Effective management of pediatric sepsis depends on timely administration of appropriate antibiotics, guided by local microbial sensitivity patterns. In the absence of a published antibiogram at the Paediatrics Department of John F. Kennedy Centre, clinicians face challenges in selecting empiric treatments. This study aims to provide data to inform antibiotic choices for children, especially neonates, presenting with suspected sepsis.

### Method

Culture reports from specimens submitted by the department to CMDC Laboratories in Sinkor between January and September 2025 were retrieved and analyzed. Sample types included blood, cerebrospinal fluid (CSF), urine, stool, pus, and umbilical swabs.

### Results

Out of 173 culture reports, 159 (92%) were from neonates. Blood samples (129 total) yielded the highest positivity rate at 65% (84/129). The most common organisms isolated from blood were coagulase-negative Staphylococcus (48.8%) and Staphylococcus aureus (23.8%). CSF cultures had a 17.9% yield, with Staph aureus, E. coli, Candida spp., and coagulase-negative Staph among the isolates.

Antibiotic sensitivity varied widely. Meropenem (87.2%) and doxycycline (80.9%) showed the highest individual effectiveness. Combination therapies significantly improved coverage, with gentamicin-based regimens achieving up to 92.7% sensitivity. The most effective combination—meropenem, doxycycline, and gentamicin—covered 100% of isolates. In contrast, cloxacillin-cephalosporin combinations showed the lowest sensitivity (32–35.8%). Notably, different isolates of the same organism displayed variable sensitivity profiles.

# Conclusion

This study highlights the urgent need for a local antibiogram to guide empiric antibiotic therapy in pediatric sepsis. Meropenem-based combinations offer the highest coverage, while cloxacillin-cephalosporin regimens are least effective. These findings can support more targeted and effective initial treatment decisions, particularly for neonates.