

JOGECA

JOURNAL OF OBSTETRICS & GYNAECOLOGY OF EASTERN AND CENTRAL AFRICA

KENYA OBSTETRICAL AND GYNAECOLOGICAL SOCIETY 50TH ANNUAL SCIENTIFIC CONFERENCE ABSTRACTS

Contents

1. EDITORIAL
2. ADOLESCENT GYNECOLOGY
3. BENIGN GYNECOLOGY
5. DIGITAL HEALTH SOLUTIONS IN REPRODUCTIVE HEALTH
8. FERTILITY
10. GYNECOLOGIC ONCOLOGY
17. INFECTIOUS DISEASES IN GYNECOLOGY
18. MATERNAL-FETAL MEDICINE
28. MENTAL HEALTH IN REPRODUCTIVE HEALTH
29. POLICY AND ADVOCACY IN REPRODUCTIVE HEALTH
33. TRANSLATION RESEARCH IN REPRODUCTIVE HEALTH
35. UROGYNECOLOGY

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Editorial

Kenya Obstetrical and Gynaecological Society (KOGS) at 50 – celebrating the Golden Jubilee

Koigi Paul, Obimbo Moses

The Kenya Obstetrical and Gynaecological Society (KOGS) was born at a defining moment in the Kenya's history, when country grappled with adverse reproductive health indicators, inequities and inequalities of access to sexual and reproductive health services, and a severe shortage of trained specialists and subspecialists in obstetrics and Gynaecology [1]. This reality has persisted despite the global recognition of the right to health under the Universal Declaration of Human Rights [2], underscoring the distance between aspiration and lived experience for Kenyan women.

KOGS emerged not merely as a professional body, but as a moral and intellectual campus committed to reshaping the reproductive health landscape of the country. From its inception, the Society embraced a multipronged approach: advancing research and scientific inquiry, strengthening academic and clinical training, promoting continuous professional development, forging strategic alliances, and engaging in advocacy, leadership, and outreach through medical camps and national platforms. This deliberate blending of science, service, and advocacy has defined KOGS' identity over five decades.

Over time, KOGS has invested incalculable human, intellectual, and fiscal resources in strengthening reproductive, maternal, and sexual health in Kenya. Its influence has extended beyond borders, shaping policy discourse, mentoring sister societies, and contributing to regional and global conversations on women's health. The Society has been privileged to count among its members towering figures titans of the health sector whose leadership, scholarship, and courage have left an indelible imprint on national and international health systems.

As we mark this Golden Jubilee, reflection must be paired with resolve. The challenges before us have evolved. Today's call is not only for access, but for scientific robustness for rigorously generated evidence, ethical research, and innovation that speaks to our context while meeting the highest global standards. KOGS must continue to strengthen its role as a custodian of credible science, ensuring that policy, practice, and advocacy are firmly anchored in data that is locally relevant and globally respected. We are reminded that maternal health does not exist in isolation. The survival, health, and potential of neonates and children form an unbroken continuum with maternal well-being. A mother's health before, during, and after pregnancy shapes the life course of her child and three subsequent generations [3]. As such, KOGS recommits to strengthening collaboration with organizations and stakeholders working in neonatal and child health, recognizing that protecting mothers is foundational to safeguarding future generations.

As we celebrate fifty years of KOGS, let this milestone be both a tribute and a turning point. Let us honor our past by investing wholeheartedly in our future. In doing so, we ensure that the vision of a nation empowered in matters of reproductive, maternal, neonatal, and child health continues not only to grow and flourish, but to bear enduring fruit for generations to come [4].

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Adolescent Gynecology

Intravaginal foreign body used for contraception resulting in vesicovaginal fistula in an adolescent: A case report

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Background: Vesicovaginal fistula is a debilitating condition associated with significant physical and psychosocial morbidity. Non-obstetric causes, particularly intravaginal foreign bodies in adolescents, are uncommon and underreported.

Case presentation: An adolescent girl presented with malodorous vaginal discharge of four months' duration. Examination under anesthesia revealed a retained feeding-bottle cap within the vaginal and a type II vesicovaginal fistula. The foreign body was removed, and a definitive fistula repair was performed three months later.

Conclusion: This case highlights the need for improved access to adolescent-friendly contraceptive services and sexual education to prevent harmful practices and associated complications.

Keywords: adolescent, contraception, intravaginal foreign body, reproductive health education, vesicovaginal fistula

WHO ACTION III Trial: Antenatal Corticosteroids for Improving Outcomes in Preterm Newborns

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Background: Late preterm birth (34+0 to 36+6 weeks) accounts for most preterm deliveries worldwide and is associated with increased neonatal morbidity and mortality, particularly in low- and middle-income countries (LMICs). Evidence regarding the safety and efficacy of antenatal corticosteroids (ACS) in this group remains limited, with neonatal hypoglycemia a key concern.

Objective: To evaluate the efficacy and safety of two ACS regimens compared with placebo among women at high risk of late preterm birth.

Methods: ACTION III is a multicentre, double-blind, placebo-controlled randomized trial conducted in 24 hospitals across Bangladesh, India, Kenya, Nigeria, and Pakistan. Pregnant women at 34+0 to 36+5 weeks' gestation at high risk of birth within 7 days are randomized to dexamethasone phosphate (6 mg intramuscularly every 12 hours for four doses), betamethasone phosphate (2 mg intramuscularly every 12 hours for four doses), or placebo. Neonatal blood glucose levels are actively monitored at 6-hourly intervals during the first 36 hours of life, enabling systematic detection of hypoglycaemia. The primary outcome is a composite of stillbirth, neonatal death within 72 hours of birth, or use of respiratory support within 72 hours of life. Secondary outcomes include neonatal and maternal safety and health service utilization.

Conclusions: Intensive postnatal glucose surveillance in ACTION III identified a higher frequency of neonatal hypoglycaemia than previously reported in similar populations, underscoring the importance of active safety monitoring in late preterm trials. These findings will inform interpretation of ACS safety data and support evidence-based guidance on monitoring and management of hypoglycaemia when ACS are used in late preterm birth, particularly in LMIC settings.

Keywords: ACTION Trial, corticosteroids, late preterm birth, neonate, preterm, World Health Organization

Benign Gynecology

Carvenous hemangioma of the cervix presenting with severe vaginal bleeding: A case report and literature review

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Background: Cervical hemangioma is a rare benign vascular tumor of the cervix that may present with abnormal bleeding. Because of its rarity and nonspecific presentation, diagnosis and management can be challenging.

Case presentation: A 51-year-old gravida 5, para 5 presented with severe vaginal bleeding and syncope. She was hypotensive with a hemoglobin level of 6g/dl. Speculum examination revealed engorged cervical vessels with active bleeding. She received 5 units of whole blood, and the cervix was packed with surgical and gauze, achieving temporary hemostasis. Examination under anesthesia with biopsy was done and cervical suturing was performed, and she was discharged pending histology. Two days later, she presented with torrential bleeding and underwent emergency hysterectomy with transfusion of two additional units of blood. Histopathology confirmed a cavernous hemangioma of the cervix.

Discussion: Cervical hemangiomas are benign vascular lesions that are often asymptomatic but may cause life-threatening bleeding. Management ranges from conservative measures to surgical excision or hysterectomy in cases of uncontrolled hemorrhage.

Conclusion: Rare cervical vascular lesions should be considered in the differential diagnosis of abnormal vaginal bleeding, particularly when bleeding is severe or recurrent.

Keywords: cervical hemangioma, cervix, vaginal bleeding, vascular tumor

Chronic ectopic pregnancy presenting as an adnexal mass: A case report

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Background: Chronic ectopic pregnancy (CEP) is a rare variant of ectopic gestation characterized by slow, repeated tubal bleeding that may form a pelvic mass. Nonspecific symptoms and low or negative beta human chorionic gonadotropin (β -hCG) levels often delay diagnosis.

Case presentation: A 25-year-old gravida 2, para 0 presented with severe lower abdominal pain and a right adnexal mass. Pelvic ultrasound demonstrated a heterogeneous right adnexal lesion with free intraperitoneal fluid. Diagnostic laparoscopy revealed hemoperitoneum and a ruptured right tubal mass, and a right salpingectomy was performed. Histopathology confirmed benign tubal epithelium with intraluminal hemorrhage and chorionic villi, consistent with a chronic tubal ectopic pregnancy. The patient recovered well and was discharged on the second postoperative day.

Conclusion: Chronic ectopic pregnancy should be considered in women presenting with adnexal masses, and nonspecific pelvic symptoms, and low or negative β -hCG levels. Surgical exploration and histopathologic confirmation may be required for definitive diagnosis.

Keywords: adnexal mass, β -hCG, chronic ectopic pregnancy, laparoscopy, ectopic pregnancy, salpingectomy

Repeat laparoscopy due to intractable severe pelvic pain: A case report

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Background: Chronic pelvic pain (CPP), commonly associated with endometriosis and pelvic adhesions, may persist prior surgical intervention. The role of repeat laparoscopy in selected patients remains debated but may provide both diagnostic clarification and therapeutic benefit.

Case presentation: A woman with longstanding chronic pelvic pain underwent

prior laparoscopy without symptomatic improvement. She presented with worsening pain and functional impairment. Repeat diagnostic laparoscopy revealed active endometriotic lesions on the pelvic peritoneum and dense adhesions involving the right iliac fossa and rectosigmoid colon. Adhesiolysis and excision of lesions were performed. Postoperatively, she reported significant pain relief, which was further improved with gonadotropin-releasing hormone analogue therapy.

Conclusion: Repeat laparoscopy may be beneficial in selected patients with persistent chronic pelvic pain when prior surgery has not addressed underlying endometriosis or adhesions.

Keywords: adhesions, chronic pelvic pain, endometriosis, laparoscopy, repeat laparoscopy.

Digital Solutions in Reproductive Health

AI-supported digital health platform to improve maternal and newborn health outcomes in Kenya: A program evaluation

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Background: Maternal and neonatal mortality in Kenya remain high despite expanded service coverage. Delays in recognizing and responding to danger signs during pregnancy and the postpartum period contribute to preventable morbidity and mortality. The PROMPTS platform integrates artificial intelligence (AI)-assisted triage, SMS communication, and clinical escalation to support timely care-seeking.

Methods: A retrospective analysis of routine service data from January to May 2025 was conducted. Incoming SMS messages from pregnant and postpartum users were screened using AI-supported triage algorithms. Messages flagged as potential danger signs were escalated to trained clinical agents for rapid assessment and referral. Engagement metrics, symptom profiles, response times, and care-seeking behaviors were summarized descriptively.

Results: During the study period, 990,721 messages were processed, of which 8% were flagged for potential maternal or newborn complications and escalated for clinical review. Common maternal symptoms included severe abdominal pain (9%), leaking fluid (6%), and reduced fetal movement (6%). Common newborn symptoms included fever (5%), diarrhea (4%), and jaundice (3%). Among high-risk users, 94% sought facility-based care after follow-up, with 30% presenting within 24 hours. 88% attended ≥ 4 ANC visits, and 89% practiced exclusive breastfeeding for six months. The helpdesk managed over 6,000 daily queries with an average 15-minute response time for high-risk cases.

Conclusion: AI-supported digital health platforms, including automated triage, human

clinical support, and SMS outreach, can reduce delays in care-seeking and improve maternal and newborn health outcomes in low-resource settings. By strengthening early danger-sign detection, referral linkages, and health education, this scalable model enhances system responsiveness and supports Kenya's efforts toward data-driven, resilient maternal and newborn care.

Keywords: artificial intelligence, digital innovations, human clinical support, PROMPTS; SMS

Artificial intelligence-supported point-of-care ultrasound for women's health: Findings from a multinational practitioner consultation

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Background: Point-of-care ultrasound (POCUS) improves access to essential imaging services in low- and middle-income countries (LMICs). Integration of artificial intelligence (AI) may enhance interpretation and clinical decision making, thereby extending diagnostic capacity at lower-level health facilities.

Methods: A structured qualitative consultation was conducted with 15 practitioners from eight countries during the 2025 FIGO Conference in Cape Town, South Africa. Participants included obstetricians/gynecologists, medical doctors,

nurses, pharmacologists, and health systems practitioners. Discussions around six domains including, clinical applications of POCUS, performance and limitations of AI-supported interpretation, training and competency requirements, ethical and accountability considerations, patient and community acceptability, and health system readiness for scale-up were documented and analyzed using thematic content analysis.

Results: Participants noted that AI-supported POCUS could enhance early detection of obstetric and gynecologic conditions and reduce diagnostic delays. However, concerns included over-reliance on AI potentially eroding clinicians' diagnostic skills, false positives leading to unnecessary referrals, and unresolved ethical and accountability concerns around AI-generated diagnoses. Participants also questioned the readiness of community-level POCUS use and warned that heavy AI reliance could weaken client-clinician relationships. Key implementation barriers included limited AI literacy, infrastructure and device maintenance challenges, absence of supportive regulatory frameworks, and increased workloads from task shifting. Acceptance barriers, including specialist gatekeeping, were noted, with strong emphasis that AI should complement not replace the clinical judgment.

Conclusion: AI-supported POCUS shows promise for strengthening women's health services in resource-constrained settings when implemented with appropriate training, safeguards, and regulatory oversight.

FemTech policy and environmental sustainability: A desk review

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Background: FemTech innovations, including telehealth, wearable technologies, diagnostics, are expanding rapidly in women's health. However, environmental sustainability considerations are rarely incorporated into health technology policy frameworks. This review explores the intersection of FemTech policy and environmental sustainability.

Methods: A narrative desk review of academic and policy literature was conducted using PubMed, Cochrane, Medscape, Jie, and GFMER databased. Policy frameworks from the World Health Organization (WHO) and the World Economic Forum were also examined. Relevant literature was screened and thematically synthesized.

Results: No peer-reviewed systematic reviews explicitly addressed FemTech policy and environmental sustainability. Existing digital health frameworks focus primarily on digital health ecosystem maturity and policy alignment with health goals, with limited integration of environmental indicators such as carbon footprint, energy consumption, or climate impact.

Conclusion: Integration of environmental sustainability considerations into FemTech policy represents emerging priority. Incorporating climate and gender-responsive indicators into health technology governance may support more sustainable and resilient innovation.

Keywords: climate resilience, environmental sustainability, FemTech, policy

Scalable digital support for maternal health: Program evaluation of the PROMPTS SMS platform in Kenya

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Background: Digital health platforms may improve access to maternal health information and timely care in low-resource settings. PROMPTS is a two-way SMS platform that delivers stage-based messaging, triages danger signs, and supports rapid follow-up for pregnant and postpartum women.

Objective: To evaluate the reach, engagement, and operational performance of the PROMPTS platform and its integration responsive into public health systems.

Methods: We conducted a retrospective analysis of routine platform data from 2023-2025. Indicators included user reach, engagement rates, escalation response time, and system integration.

Results: PROMPTS operates in 24 counties across Kenya and has reached more than 3 million women nationally, with approximately 850,000 currently enrolled. Sustained engagement across pregnancy and the postpartum period was 60%. In 2024, more than 35,000 danger signs were flagged, and escalation response times decreased from over 800 minutes to under 15 minutes follow workflow and AI optimization. Integration with Ministry of Health dashboards is enabled facility-level use of real-time data.

Conclusion: PROMPTS demonstrates the feasibility of a scalable, government-integrated maternal health platform. By combining AI-enabled SMS triage may support timely identification and response to maternal risks in resource-constrained settings.

Keywords: AI, maternal health, PROMPTS, SMS

Fertility

Laparoscopy, *in vitro* fertilization, and endometriosis-related infertility: A literature review

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Background: Endometriosis is a chronic gynecologic condition characterized by the presence of endometrial-like tissue outside the uterine cavity. It affects a 5–10% of women at reproductive age and is associated with infertility up to 50% of cases. The optimal management of endometriosis-related infertility remains controversial. Although laparoscopic excision may improve pelvic anatomy, its impact on *in vitro* fertilization (IVF) outcomes is uncertain, and surgery may adversely affect ovarian reserve.

Objective: To review the current evidence on endometriosis-related infertility to identify evidence-based key points that can enhance tailored management in clinical practice.

Methods: A literature search was conducted in PubMed using the terms “endometriosis,” ‘laparoscopy,’ and ‘*in vitro* fertilization.’

Results: Evidence suggests laparoscopic surgery may benefit selected patients, particularly those with deep infiltrating disease. However, surgical treatment of ovarian endometriomas may reduce ovarian reserve. IVF is often preferred in women with bilateral ovarian endometriomas, prior pelvic surgery, and advanced maternal age. Current evidence does not consistently support routine surgery solely to improve IVF outcomes.

Conclusion: Both laparoscopy and IVF play important roles in the management of endometriosis-related infertility. Treatment should be individualized based on patient characteristics and disease severity.

Keywords: endometriosis, infertility, *in vitro* fertilization, laparoscopic surgery

Ovarian stimulation strategies for women with diminished ovarian reserve: A literature review

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Background: The mean age at first childbirth continues to rise, resulting in increasing numbers of women experiencing subfertility related to diminished ovarian reserve (DOR). *In vitro* fertilization outcomes in this population are often suboptimal. Various ovarian stimulation protocols and adjuvant therapies have been proposed to improve reproductive outcomes; however, optimal management remains unclear.

Objective: To review current evidence on ovarian stimulation strategies and adjuvant treatments for women with DOR defined according to the according to Patient-Oriented Strategies Encompassing Individualized Oocyte Number (POSEIDON) criteria.

Methods: A literature search was conducted in PubMed using the terms “diminished ovarian reserve,” “*in vitro* fertilization,” “ovarian stimulation,” and “POSEIDON.” Outcomes of interest included live birth rate or ongoing pregnancy, outcomes were number of oocytes retrieved, metaphase II oocytes, clinical pregnancy rates, and miscarriage rates.

Results: Androgen supplementation, including testosterone and ehydroepiandrosterone, and higher gonadotropin doses were associated with improved oocytes yield. Other interventions, including delayed-start protocols, letrozole, clomiphene citrate, growth hormone, dual stimulation, corifollitropin alfa, luteal-phase stimulation, dual stimulation, luteinizing hormone supplementation, and estradiol pretreatment showed inconsistent or limited benefit.

Conclusion: Evidence supporting specific ovarian stimulation strategies in women with DOR remains heterogeneous and limited. Further well-designed trials are required to determine the most effective approaches to improve reproductive outcomes in this population.

Keywords: diminished ovarian reserve, in vitro fertilization, ovarian stimulation, POISEDON Criteria

Patterns of male factor infertility at a fertility clinic in Nairobi: A retrospective cross-sectional study

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Background: Male factor infertility contributes substantially to infertility worldwide but remains underdiagnosed and underprioritized in many low- and middle-income countries. Local data describing the prevalence and patterns of male factor infertility in Kenya are limited. This study aimed to describe the characteristics of male factor infertility among couples presenting to a specialized fertility clinic in Nairobi.

Methods: A retrospective cross-sectional review of infertility cases records was conducted between January 2019 and December 2025, including files from 2024–2025, extracting male demographic, clinical, hormonal, and semen analysis data (WHO 2021 criteria) to describe trends in male factor infertility. Systemic sampling (every second file) was used to select records. Data were summarized using frequencies and percentages, and associations were assessed using chi-square tests.

Results: A total of 298 male files were analyzed. Male factor infertility was identified in 40.7% of cases. The most common semen abnormalities identified were teratozoospermia (48.7%), asthenozoospermia (35.5%), oligospermia (18.0%), hypospermia (16.4%), and hyperspermia (0.7%). Increasing age was significantly associated with asthenozoospermia, and abnormal sperm volume ($p < 0.05$).

Conclusion: Male factor infertility represents a substantial proportion of infertility among couples seeking care. Early male evaluation and integration of male reproductive health into routine fertility services may improve management. These findings provide locally relevant data to inform clinical practice and future research.

Keywords: fertility, infertility male infertility, Kenya, teratozoospermia

Gynecologic Oncology

A curable malignancy made lethal - Ultra high-risk gestational trophoblastic neoplasia in a low-income setting: A case report

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Background: Gestational trophoblastic neoplasia (GTN) is highly chemosensitive and potentially curable malignancy, with survival rates exceeding 90% when timely chemotherapy and supportive care are available. However, outcomes may be compromised in low-resource settings where access to essential supportive services is limited. This is a case of ultra-high-risk GTN in which management was hindered by systemic constraints rather than disease biology.

Case presentation: A 34-year-old presented with recurrent vaginal bleeding, severe anemia (hemoglobin 6.0 g/dL), and radiologic evidence of pulmonary metastases. She was classified as ultra-high-risk GTN using the FIGO staging and scoring system. Initiation of multi-agent chemotherapy required repeated blood transfusions but was complicated by blood product scarcity and transfusion reactions. These challenges caused delays in chemotherapy administration, as treatment cycles could proceed only after adequate hematologic stabilization. Through sustained multidisciplinary coordination, her hemoglobin improved to 10.0 g/dL, enabling continuation of therapy.

Conclusion: System-level resource limitations can transform an otherwise curable malignancy into a life-threatening condition. Strengthening transfusion services and ensuring uninterrupted chemotherapy delivery are critical to improving GTN outcomes in resource-constrained settings.

Keywords: blood transfusion, gestational trophoblastic neoplasia, low-resource settings, ultra high-risk GTN

Advanced clear cell adenocarcinoma of the cervix presenting with metastatic disease in a 23-year-old woman: A case report

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Background: Clear cell adenocarcinoma of the cervix (CCAC) is a rare histologic subtype representing <5% of cervical adenocarcinomas and is typically independent of human papillomavirus (HPV) infection. Early-onset cases have historically been linked to in utero diethylstilbestrol (DES) exposure, although sporadic cases with DES exposure occur with unclear etiology. Data on CCAC in sub-Saharan Africa remain limited.

Case presentation: A 23-year-old, gravida 1 para 1 (twins pregnancy delivered by cesarean section), presented with an 8-month history of profuse, foul-smelling vaginal discharge and progressive lower abdominal burning pain unresponsive to antibiotics. Speculum examination revealed a fungating cervical mass. Pap smear and cervical biopsy confirmed clear cell adenocarcinoma. Staging imaging demonstrated pulmonary metastases consistent with FIGO stage IVB disease. She received blood transfusions for symptomatic anemia and commenced palliative chemoradiotherapy. She had no history of DES exposure or prior cervical cancer screening.

Conclusion: CCAC is an uncommon, typically HPV-independent malignancy that may present at an advanced stage in young women without traditional risk factors. Accurate diagnosis requires histopathological confirmation and immunohistochemistry. This case highlights the importance of early recognition and

strengthened cervical cancer screening and surveillance in resource-limited settings.

Keywords: cervical adenocarcinomas, cervical cancer, clear-cell adenocarcinoma, diethylstilbestrol, HPV

Bridging Knowledge and Access to Genetic Services (BRIDGE): Building capacity for genetic counseling in Oncology through a digital training pilot in Kenya

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Background: Hereditary breast and ovarian cancer syndrome (HBOC), driven by pathogenic variants in BRCA1 and BRCA2, has significant implications for treatment decisions, risk-reducing surgery, and cascade testing. Despite increasing availability of BRCA testing in Kenya, uptake remains extremely low due to limited provider awareness, counseling capacity, and unclear referral pathways. As oncology care increasingly adopts a mainstreamed genetic testing model globally, there is an urgent need to build context-appropriate genetic counseling capacity among frontline oncology clinicians in Kenya.

Objective: To strengthen oncology provider capacity to facilitate access to genetic services, inform cascade testing, and facilitate integration into routine oncology care.

Methods: BRIDGE is a mixed-methods implementation pilot study targeting oncology healthcare workers involved in breast and ovarian cancer care across Kenya. The intervention consists of a short, modular, video-based digital training program optimized for low-bandwidth settings and hosted on a Gynecologic Oncology Society of Kenya (GOSK)-supported platform. Training content focuses on core competencies required for safe mainstreamed genetic counseling, including identification of eligible patients, informed consent, communication and interpretation of results, cultural and psychosocial considerations, and referral pathways. Pre- and

post-training assessments will evaluate changes in knowledge, confidence, and perceived preparedness, alongside feasibility and acceptability of the digital training model.

Expected outcomes: The BRIDGE program is expected to improve timely referral for BRCA testing, enhance patient understanding of genetic results, and support more equitable access to targeted therapies and cascade testing. Findings will generate locally relevant implementation evidence to inform future scale-up of genetic counseling services within Kenya's oncology services.

Conclusion: BRIDGE offers a pragmatic, scalable approach to integrating genetic counseling into routine oncology care in low-resource settings. By strengthening provider competence and confidence, the program lays the foundation for equitable access to precision oncology and improved hereditary cancer care in Kenya.

Keywords: BRCA, genetic counseling, hereditary breast and ovarian cancer, implementation science, Kenya.

Cancer of unknown primary presumed ovarian: A case report and literature review

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Background: Cancer of unknown primary (CUP) is defined metastatic malignancy in which the site of origin remains unidentified despite comprehensive clinical, radiologic, and pathologic evaluation. CUP accounts for approximately 1–2% of invasive cancers, most commonly adenocarcinoma, with frequent metastases to lymph nodes, liver, bone, and lung.

Case presentation: A 44-year-old woman presented with a seven-month history of

progressive abdominal distention, malaise, and vaginal bleeding, and a four-month history of anterior chest wall swelling with acute dyspnea. Examination revealed left supraclavicular lymphadenopathy. CA-125 was markedly elevated at 1676 U/mL. Computed tomography demonstrated a large pelvic mass suspicious of ovarian malignancy and a right chest wall mass infiltrating the pleura and lung, with massive pleural effusion. Histopathology of a cervical lymph node biopsy confirmed metastatic carcinoma, and immunohistochemistry supported a female genital tract origin. The patient underwent pleural drainage, pleurodesis, and platinum-taxane chemotherapy, resulting in symptomatic improvement and declining CA-125 levels.

Conclusion: This case highlights the diagnostic and therapeutic challenges of CUP and emphasizes the role of targeting imaging, tumor markers, and immunohistochemistry in identifying a probable ovarian origin, enabling site-directed chemotherapy and improved clinical response.

Keywords: CA-125, cancer of unknown primary, immunohistochemistry, metastatic cancer, ovarian cancer

Extrarenal Wilms tumor of the uterine corpus in a 12-year-old: A case report

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Background: Wilms tumor is a pediatric renal malignancy that rarely occurs outside the kidney. Extrarenal Wilms' tumors of the female genital tract are exceptionally uncommon (15 cases reported, 6 adults, 9 children) and may mimic other gynecologic malignancies, posing diagnostic and therapeutic challenges.

Case presentation: A 12-year-old girl presented with a one-month history of vaginal bleeding and foul-smelling discharge, with no prior history of

trauma or sexual assault. Examination under anesthesia revealed a smooth mass protruding through the vaginal introitus, which was excised. The cervix was dilated and bulky, and endometrial sampling was obtained. Initial histopathology suggested endometrioid endometrial carcinoma. The patient was lost for follow-up and returned two months later with recurrent symptoms. Magnetic resonance imaging demonstrated an endometrial polyp. She subsequently underwent total abdominal hysterectomy with bilateral salpingectomy and pelvic nodal sampling. Final histopathologic evaluation with immunohistochemistry confirmed extrarenal Wilms tumor of the uterine corpus. The patient was classified as high-risk stage II and received 26 weeks combination chemotherapy with vincristine, adriamycin D, and doxorubicin according to a Wilms tumor protocol. Post-treatment surveillance imaging showed no evidence of disease.

Conclusion: Extrarenal Wilms tumor of the uterus is exceedingly rare and may be misdiagnosed as other uterine malignancies. Comprehensive histopathologic and immunohistochemical evaluation is essential for accurate diagnosis and appropriate management. Early multidisciplinary care improves outcomes in these uncommon presentations.

Keywords: chemotherapy, extrarenal Wilms tumor, immunohistochemistry, pediatric gynecology, uterine neoplasm

Integrated molecular classification in endometrial cancer: A case series

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Background: Endometrial cancer (EC) incidence is increasing globally. Molecular classification based on The Cancer Genome Atlas (TCGA) subtypes has been incorporated into clinical practice to improve prognostic accuracy and guide adjuvant therapy beyond conventional histopathologic grading.

Case series: Two patients with grade 3 endometrioid endometrial carcinoma are discussed. Patient A, a 68-year-old diagnosed with FIGO grade 3 endometrioid adenocarcinoma and deep invasion, received radiotherapy based on high-risk morphologic features and subsequently developed recurrence. Patient B, also with a grade 3 tumor, underwent molecular risk stratification using surrogate immunohistochemistry. An abnormal p53abn, a high-risk subtype, and adjuvant chemoradiotherapy was administered.

Conclusion: Integration of the TCGA-based molecular classification (POLEmut, MMRd, NSMP, p53abn) may improve risk stratification and inform individualized treatment decisions in endometrial cancer. Molecular profiling complements histopathology and supports precision oncology approaches.

Keywords: endometrial cancer, endometrioid carcinoma, histopathology, immunohistochemistry, molecular classification

Locally advanced cervical cancer in a 28-year-old woman: A case report

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Background: Cervical cancer remains a leading cause of cancer-related morbidity and mortality among women in low- and middle-income countries, largely due to persistent human papillomavirus (HPV) infection and delayed diagnosis.

Case presentation: A 28-year-old nulliparous African woman presented with a 6-month history of vaginal discharge and heavy bleeding associated with symptomatic anemia and multiple prior transfusions. On examination, she was markedly pale. Speculum examination revealed a friable cervical mass. She was clinically staged as FIGO stage IIB cervical cancer. Laboratory evaluation showed severe

anemia (hemoglobin 2.5g/dl) with normal renal function. Pelvic ultrasonography and computed tomography were performed for staging. Cervical biopsy confirmed moderately differentiated invasive squamous cell carcinoma. The patient received multiple blood transfusions and homeostatic measures, followed by brachytherapy and definitive chemoradiotherapy. Clinical improvement was observed during treatment.

Conclusion: This case highlights the severe presentation of locally advanced cervical cancer in young women and underscores the importance of early screening, timely diagnosis, and access to standard chemotherapy to improve outcomes in resource-limited settings.

Keywords: cervical cancer, chemoradiotherapy, HPV, locally advanced disease, squamous cell carcinoma

Low-grade endometrial stromal sarcoma mimicking uterine leiomyomas: A case report

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Background: Uterine leiomyomas are the most common benign pelvic tumors in women, whereas uterine sarcomas are rare but aggressive malignancies that may present with similar clinical and radiological features. Preoperative distinction between these conditions is challenging yet critical, as management strategies and prognosis differ significantly.

Case presentation: A 37-year-old presented with abnormal uterine bleeding. Pelvic ultrasonography demonstrated multiple myometrial masses, including one lesion with cystic degeneration, consistent with presumed leiomyomas. She underwent myomectomy for symptomatic relief. Intraoperatively, the uterus was enlarged to approximately a 12-week gestational size, with four discrete masses. Histopathological examination unexpectedly revealed low-grade endometrial stromal sarcoma in the largest lesion, while the remaining masses

were benign leiomyomas. The patient was subsequently referred for abdominopelvic magnetic resonance imaging and gynecologic oncology evaluation for definitive management.

Conclusion: Although uncommon, uterine sarcomas may mimic leiomyomas clinically and radiologically, even in younger women. A high index of suspicion, appropriate preoperative imaging, and routine histopathological evaluation are essential to ensure accurate diagnosis and guide timely oncologic management.

Keywords: differential diagnosis, endometrial stromal sarcoma, uterine sarcoma, leiomyoma

Maintenance therapy in advanced epithelial ovarian cancer: Evidence and clinical implications

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Background: Advanced epithelial ovarian cancer (EOC) remains a leading cause of gynecologic cancer mortality. Although most patients respond to initial platinum-based chemotherapy following optimal cytoreductive surgery, relapse is common and is associated with progressively shorter treatment-free intervals and cumulative treatment toxicity. Maintenance therapy has emerged as an important strategy to prolong remission, delay subsequent chemotherapy, and improve long-term outcomes.

Objective: To summarize current evidence supporting maintenance therapy in advanced EOC, with emphasis on poly(ADP-ribose) polymerase (PARP)-inhibitor based strategies.

Methods: Data from key randomized clinical trials evaluating PARP inhibitor maintenance therapy, including SOLO-1 and SOLO-2, focusing on the role of maintenance olaparib in patients with BRCA1/2-mutated disease in both first-line and platinum-sensitive recurrent settings. Clinically relevant endpoints examined include progression-free survival (PFS), overall

survival (OS), time to subsequent therapy, safety, and quality of life.

Results: Across multiple studies, PARP inhibitor maintenance therapy demonstrates significant and durable improvements in PFS compared with placebo. In the first-line setting, maintenance olaparib is associated with prolonged disease control, with many patients remaining progression-free beyond five years. In platinum-sensitive recurrent disease, maintenance therapy reduces the risk of progression and delays the need for further chemotherapy, with manageable toxicity and preserved quality of life.

Conclusion: Maintenance therapy, particularly with PARP inhibitors, is now a central component of advanced EOC management, enabling personalized, biomarker-driven care and offering the potential for prolonged remission and improved survival.

Keywords: BRCA mutation, epithelial ovarian cancer, maintenance therapy, olaparib, PARP inhibitors

Parental acceptability and uptake of HPV vaccination among 10-year-old school-going girls in Kisumu County, Kenya: A qualitative study

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Background: Cervical cancer remains a major public health burden in Kenya. Although human papillomavirus (HPV) vaccination is effective in preventing cervical cancer, uptake among eligible girls remains suboptimal. This study explored sociocultural and perceptual factors influencing parental acceptability of HPV vaccination in Kisumu County.

Methods: A qualitative study using a grounded theory-informed thematic approach was conducted between March and May 2022. Four focus group discussions were held in rural and urban settings with purposively selected guardians of both vaccinated and unvaccinated girls. Discussions were conducted in Luo or English, audio-recorded, transcribed, translated where necessary, and systematically coded. Themes were developed through iterative comparison and synthesis.

Results: Key themes included limited knowledge of HPV infection and concerns about safety. Although participants recognized cervical cancer as a serious health problem, many lacked understandings of the vaccine's mechanism long-term effectiveness. Misinformation, fear of adverse effects, and inconsistent communication from health providers contributed to hesitancy and, in some cases, refusal of vaccination.

Conclusion: Parental acceptability of the HPV vaccine is shaped by informational and sociocultural factors. Strengthening health education and addressing misinformation may improve confidence and vaccine uptake.

Keywords: cervical cancer prevention, HPV vaccine, parental perceptions, vaccine hesitancy, vaccine uptake

Parental acceptability and uptake of HPV vaccination among 10-year-old school-going girls in Kisumu County, Kenya: A quantitative study

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Background: Despite national introduction of the human papillomavirus (HPV) vaccination

program in Kenya, coverage remains inconsistent, potentially limiting cervical cancer prevention efforts. This study assessed HPV vaccine uptake among 10-year-old school-going girls in Kisumu County.

Methods: A cross-sectional study using secondary data was conducted. Vaccination records for 384 eligible girls aged 10 years between December 2019 and December 2021 were extracted from primary school vaccination registers across urban and rural settings. Vaccine uptake was defined as receipt of 1 dose, and completion as receipt of two doses. Data were analyzed descriptively using frequencies and percentages.

Results: Overall vaccine uptake (1 dose) of 65%. Only 30.98% completed the two-dose regimen, while 26.82% received a single dose. Approximately 34.37% received no vaccination. Most guardians whose information was documented were female, above 30 years of age, and had attained post-secondary education. The gap between initiation and completion suggests barriers to completing the recommended schedule.

Conclusion: Although HPV vaccination is provided through school-based programs, uptake and completion rates in Kisumu County remain suboptimal. Targeted follow-up and community engagement may improve full-dose coverage and enhance cervical cancer prevention efforts.

Keywords: cervical cancer prevention, immunization coverage, HPV vaccine, school-based vaccination, vaccine uptake

Pembrolizumab therapy in platinum-sensitive recurrent epithelial ovarian cancer: A case report

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Background: Epithelial ovarian cancer (EOC) is the mostly diagnosed at advanced stages and is associated with high recurrence rates despite surgery and platinum-based chemotherapy. Immune checkpoint inhibitors targeting programmed death-1 (PD-1) or programmed death-ligand 1 (PD-L1) have emerged as potential therapeutic options in selected patients with recurrent disease, although their role in ovarian cancer remains under investigation.

Case presentation: A 67-year-old para 6 with stage IIIc epithelial ovarian cancer diagnosed in 2023. She received neoadjuvant chemotherapy followed by debulking surgery and six cycles of adjuvant carboplatin, paclitaxel, and bevacizumab. She subsequently developed platinum-sensitive recurrence. Molecular tumor demonstrated PD-1 expression. The patient was treated with combination chemotherapy and pembrolizumab (100mg intravenously every three weeks) followed by three weekly maintenance pembrolizumab. The patient had a remarkable response and a significant reduction in tumor burden.

Conclusion: This case highlights the potential benefit of PD-1/PD-L1 inhibitor therapy in selected patients with platinum-sensitive recurrent ovarian cancer.

Keywords: epithelial ovarian cancer, immune checkpoint inhibitors, ovarian cancer, PD-1, pembrolizumab, platinum-sensitive recurrence.

Serous tubal intraepithelial carcinoma (STIC): A case series

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Background: Increasing evidence suggests that many extrauterine high-grade serous carcinomas (HGSC) originate from a serous tubal

intraepithelial carcinoma (STIC), a precursor lesion typically located in the fimbrial end of the fallopian tube. STIC may occasionally be identified incidentally in the absence of overt invasive carcinoma, creating uncertainty regarding optimal management.

Case presentation: We present two cases of histologically confirmed STIC. Case 1: A 79-year-old presented with progressive abdominal distension, early satiety, and bloating. Computed tomography demonstrated normal-sized ovaries with massive ascites and a left pleural effusion. Serum cancer antigen (CA)-125 was elevated at 600 U/mL. She underwent primary debulking surgery. Histopathology revealed malignant ascites with bilateral STIC. She received adjuvant carboplatin-paclitaxel chemotherapy. Case 2: A 57-year-old para 4 presented with postmenopausal bleeding. Endometrial biopsy was benign. She underwent total abdominal hysterectomy with bilateral salpingo-oophorectomy. Histology incidentally identified bilateral STIC, stage 1B. She was commenced on adjuvant chemotherapy.

Conclusion: STIC is an uncommon but clinically significant precursor to high-grade serous carcinoma and may be detected incidentally or alongside advanced disease. Management remains variable due to the absence of standardized guidelines. Careful histopathological evaluation and multidisciplinary decision-making are essential to guide treatment and follow-up.

Keywords: fallopian tube, high-grade serous carcinoma, precursor lesion, serous tubal intraepithelial carcinoma, STIC

Strengthening clinical capacity in the management of preinvasive cervical disease: A simulation-based hands-on training workshop

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Background: Cervical cancer remains a leading cause of morbidity and mortality in low- and

middle-income countries, largely due to gaps in screening, diagnosis, and timely management of preinvasive disease. Strengthening provider competence to accurately diagnose and treat preinvasive cervical lesions is essential to achieving cervical cancer elimination targets.

Objective: To improve clinical competence in the diagnosis and management of preinvasive disease of the lower genital tract through structured, skills-based training.

Methods: This workshop forms **Phase 3 of the International Gynecologic Cancer Society (IGCS) Preinvasive Certificate Program** and will be conducted during the **2026 KOGS Annual Scientific Congress**. Participants who have completed Phases 1 and 2 online modules will undertake a simulation-based practical course combining brief didactic sessions with supervised hands-on training. Core topics includes HPV natural history, cervical cancer screening strategies, colposcopic assessment,

and treatment of preinvasive lesions. Practical stations will provide training in colposcopy, ablative therapy using thermoablation, and excisional treatment using loop electrosurgical excision procedure (LEEP), facilitated by experienced faculty.

Expected outcomes: Participants are expected to demonstrate improved proficiency in colposcopic interpretation, appropriate treatment selection, and safe performance of ablative and excisional procedures, enabling translation of knowledge into clinical practice.

Conclusion: Competency-based, hands-on training provides an effective and scalable approach to strengthening cervical cancer

prevention services and supporting national and regional elimination efforts.

Keywords: cervical cancer, cervical cancer elimination, colposcopy, LEEP, simulation, thermoablation

Infectious Diseases in Gynecology

Peritoneal tuberculosis mimicking advanced ovarian cancer: A case report

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Background: Peritoneal tuberculosis (PTB) remains a significant health burden in sub-Saharan Africa. Its clinical, laboratory, and radiologic features, including ascites, lymphadenopathy, and elevated cancer antigen 125 (CA-125), often resemble advanced ovarian malignancy. This overlap presents a diagnostic challenge: delayed cancer diagnosis risks disease progression, while unnecessary laparotomy for PTB increases morbidity.

Case presentation: A 38-year-old woman presented with progressive abdominal distension and weight loss. Computed tomography showed bilaterally enlarged ovaries,

peritoneal enhancement with fat stranding, and mesenteric lymphadenopathy, suggestive of ovarian carcinoma. CA-125 levels were markedly elevated. During staging laparotomy, straw-colored ascites, diffuse peritoneal nodules, matted bowel, and nodular but normal-sized ovaries adherent to the uterus and bowel were noted. Peritoneal biopsies were obtained, and the procedure was halted. Histopathology demonstrated granulomatous inflammation; Ziehl-Neelsen staining and cultures were negative for acid-fast bacilli, consistent with paucibacillary PTB. A diagnosis of peritoneal tuberculosis was established, and anti-tuberculosis therapy was initiated, resulting in clinical improvement and resolution of ascites.

Conclusion: Peritoneal tuberculosis can closely mimic advanced ovarian cancer, including elevated CA-125 and radiological features of carcinomatosis. In TB-endemic regions, clinicians should maintain a high index of suspicion to avoid unnecessary surgical interventions. Adjunctive tests, such as serum adenosine deaminase testing may support diagnosis and guide management.

Keywords: CA-125, diagnostic mimicry, ovarian cancer, peritoneal tuberculosis

Maternal Fetal Medicine

Accelerated placenta calcification near term: A case report

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Background: Placental calcification is a common ultrasonographic finding in routine and specific targeted obstetric ultrasound scans, there has been general asthenia in determining its significance. Yet, in the background, there is high concurrence that it can have deleterious effects, especially when it is severe. However, there is no concurrence on a criterion that can inform clinical decisions. This case provides insight on likelihood of adverse outcomes and should trigger interest on placental calcification as posing likelihood of adverse fetal outcome in the short and long term. Literature on this subject is scanty, but there are a few studies that have given credence to short term adverse outcomes of preterm placental calcification (PPC). Literature on long term effects is generally lacking, but the possible outcomes can be extrapolated from effects of other factors that affect intrauterine fetal growth and development.

Case presentation: This was a case of accelerated placental calcification after 36 weeks gestation in primigravida. Despite presence of many small intramural fibroids, the potential for fetal growth was fully exploited as per expectation in normal pregnancy. The deleterious effects coincided with the accelerated placental calcification suggestive of cause effect situation.

Discussion: Despite many small intramural fibroids, exploitation of third trimester explosive fetal growth potential was good. Through critical analysis of the gestational events, the impact of accelerated placental calcification was

connoted primarily by severe oligohydramnios and reduced fetal movements at 36 to 38 weeks of gestation, necessitating emergency cesarean. The outcome was good.

Conclusion: This finding highlights the need for taking placental calcification seriously and not assuming that it is a normal occurrence.

Keywords: meconium release, placental calcification, reduced fetal movements

Acceleration of Every Women Every Newborn Everywhere (EWENE) through motorcycle taxi (“boda boda” male riders to improve maternity care access in Makueni County: A community-based intervention study

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Background: Maternal and neonatal mortality in sub-Saharan Africa remains high, partly due to delays in seeking and reaching care. Transport barriers and limited male involvement contribute significantly to these delays. Engaging community-based transport providers may improve timely access to maternity services. This study evaluated a community-based intervention that trained motorcycle taxi (“boda

boda”) riders to support maternal and newborn care in Makueni County, Kenya.

Methods: A social innovation program was implemented targeting boda boda riders and their leaders. Participants received Kiswahili-language training on maternal and neonatal danger signs, the importance of early facility attendance across the antenatal, intrapartum, and postpartum periods, and supportive gender norms. Interactive workshops incorporated peer learning and lived experiences. Pre- and post-intervention assessments measured changes in knowledge, attitudes, and self-reported behaviors. Program activities, peer-to-peer diffusion, and community engagement initiatives were documented.

Results: Post-training, participants demonstrated improved recognition of maternal and neonatal danger signs and increased willingness to facilitate timely referral and transport of pregnant women to health facilities. Peer diffusion was observed, with non-trained riders adopting similar supportive behaviors. Trained groups initiated additional community health activities, including organizing a blood donation drive. Findings indicate positive shifts in knowledge, attitudes, and transport-related support practices at both individual and community levels.

Conclusion: Training male transport providers is a feasible and culturally acceptable strategy to address transport-related delays in maternity care. Mobilizing boda boda riders as community allies may strengthen timely access to skilled obstetric services and offers a scalable, gender-responsive approach to improving maternal and newborn health outcomes.

Keywords: maternal health; transport barriers; male engagement; community intervention; Kenya; boda boda.

Advancing oral health in maternal, infant, and reproductive wellness: A narrative review

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Background: Oral health is an essential component of overall health and well-being. Oral diseases affect an estimated 3.7 billion people globally and remain highly prevalent in low- and middle-income countries, including Kenya, disproportionately affecting women and children. Pregnancy is associated with increased susceptibility to oral conditions, which may adversely affect both maternal and neonatal outcomes. Evidence also links poor oral health with systemic conditions including cardiovascular disease, diabetes, and adverse pregnancy outcomes. Despite these associations, integration of oral health into obstetrics and gynecologic care remains limited.

Objective: To review the relationship between oral health and maternal, infant, and reproductive outcomes, and to highlight strategies for integrating preventive and therapeutic oral healthcare into routine obstetric and gynecologic practice.

Methods: A narrative review of current literature and clinical practices was conducted to summarize the epidemiology, risk factors, consequences, and management of oral diseases in women of reproductive age, with emphasis on multidisciplinary care models and emerging preventive approaches.

Results: Preventive oral healthcare before, during, and after pregnancy improves maternal and infant outcomes. Early screening, timely treatment, patient education, and collaboration between dental and reproductive health providers enhance disease prevention and continuity of care. Multidisciplinary approaches and standardized referral pathways facilitate comprehensive management and reduce missed opportunities for intervention.

Conclusion: Integrating oral health into reproductive and maternal healthcare is critical to improving overall health outcomes. Routine screening, interprofessional collaboration, and standardized care protocols should be incorporated into obstetric and gynecologic services to promote holistic, patient-centered care.

Keywords: maternal health, multidisciplinary care, oral health, preventive dentistry, reproductive health

Assessment of healthcare provider adherence to the MOTIVE bundle for postpartum hemorrhage

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Background: The MOTIVE bundle of care has been recommended for the treatment of postpartum hemorrhage (PPH) to improve maternal outcomes. The bundle integrates early detection of PPH with a set of time-critical interventions - uterine Massage, Oxytocin drugs, Tranexamic acid, intravenous (IV) fluids, Examination and escalation of care - administered within 15 minutes to control bleeding. However, the effectiveness of this bundled approach depends on consistent adherence by healthcare providers.

Objective: To assess adherence to the MOTIVE bundle of care for postpartum hemorrhage in three health facilities.

Methods: Direct observations were conducted to assess the management of women diagnosed with PPH following vaginal birth. Adherence was defined as the receipt of complete MOTIVE bundle, rather than individual components alone. The proportion of women who received the full bundle was calculated, and descriptive analysis was performed.

Results: Among 604 vaginal births, 92 cases of PPH (15%) were identified. Of these, 73 women (80%) received the complete MOTIVE bundle of care. Key gaps were identified in tranexamic acid use.

Conclusion: Adherence to the complete MOTIVE bundle for PPH was high. Strengthening provider training, reinforcing protocol adherence, and ensuring commodity availability are critical to improving consistent implementation and enhancing the quality of PPH care.

Keywords: adherence, healthcare provider, MOTIVE bundle of care, postpartum hemorrhage, quality of care

Bilateral pheochromocytoma in pregnancy managed surgically with fetus *in utero* in a low-resource setting: A case report

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Background: Pheochromocytoma in pregnancy is rare but potentially life-threatening, may present as an overlooked cause of hypertensive crisis with significant maternal and fetal morbidity. Early recognition remains challenging, particularly in low-resource settings, yet is critical to improving outcomes.

Case presentation: A 35-year-old gravida 2 para 1 at 15 + 6 weeks' gestation, with chronic hypertension and poor medication adherence, who presented with vomiting, headache, and abdominal pain. She was treated for hyperemesis gravidarum but subsequently developed seizures and labile blood pressure. Imaging identified bilateral adrenal masses, and biochemical evaluation confirmed pheochromocytoma. Following multidisciplinary consultation, preoperative alpha blockade was initiated. Bilateral adrenalectomy was performed at 25 weeks' gestation with the fetus in utero.

Postoperative complications were managed successfully. At 34 weeks, fetal growth restriction prompted emergency cesarean delivery, resulting in a live male neonate with good Apgar scores.

Conclusion: Pheochromocytoma in pregnancy requires high index of suspicion, prompt diagnosis, and coordinated multidisciplinary management. Surgical intervention during pregnancy can be safely undertaken in selected cases, even in low-resource settings, to optimize maternal and fetal outcomes.

Keywords: adrenalectomy, hypertensive crisis, multidisciplinary care, pheochromocytoma, pregnancy

Beyond preeclampsia - hemorrhagic stroke in a pregnant woman with chronic hypertension: A case report

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Background: Chronic hypertension in pregnancy may result in severe maternal complications beyond superimposed preeclampsia, including cerebrovascular events, which are rare but associated with high maternal and fetal morbidity and mortality.

Case presentation: A 42-year-old gravida 7 para 6 at 26 weeks' gestation with chronic hypertension presented with sudden-onset right-sided weakness and slurred speech. On admission, her blood pressure was 208/135 mmHg. A computed tomography scan of the brain demonstrated an acute left thalamic intracerebral hemorrhage. Laboratory evaluation

demonstrated acute kidney injury. She was managed in a high-dependency unit with multidisciplinary input from obstetrics, neurology, and nephrology. Due to worsening renal function, she was started on heparin-free dialysis. Mode of delivery was extensively discussed given concerns regarding blood pressure surges and increased intracranial pressure during the second stage of labor. The patient declined cesarean delivery and subsequently entered spontaneous labor, delivering a fresh stillborn infant weighing 800 g. Postpartum, blood pressure control improved and renal function recovered after three dialysis sessions. She was discharged home in stable condition with progressive neurological improvement.

Conclusion: This case underscores the need to consider cerebrovascular events in pregnant women with chronic hypertension presenting with acute neurological symptoms. Early neuroimaging and coordinated multidisciplinary care are critical in differentiating non-preeclamptic causes and optimizing maternal outcomes.

Keywords: chronic hypertension, hemorrhagic stroke, multidisciplinary care, preeclampsia

Candida placentitis following cervical cerclage and preterm premature rupture of membranes: A case report

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Background: Candida placentitis is a rare but serious cause of intrauterine infection associated with preterm birth, fetal sepsis, and perinatal mortality. Ascending fungal infection has been described in association with cervical instrumentation, membrane rupture, and immunological or procedural risk factors.

Case presentation: A 42-year-old woman with an in vitro fertilization (IVF) conception and a Mac-Donald cervical cerclage presented at 26 weeks' gestation with vaginal discharge and was diagnosed with preterm premature rupture of membranes (PPROM). She was delivered via cesarean section at 27 weeks. The preterm neonate succumbed, and fetal autopsy demonstrated fungal pneumonitis. Placental histopathology revealed subchorionic abscesses and features consistent with Candida placentitis.

Conclusion: Although uncommon, Candida placentitis may contribute to adverse perinatal outcomes. In selected high-risk patients, targeted evaluation of intrauterine infection may be valuable. Preventive strategies may include screening and treatment of asymptomatic vulvovaginal candidiasis and ensuring treatment of fungal infection prior to IVF.

Keywords: Candida placentitis, cervical cerclage, chorioamnionitis, in vitro fertilization, preterm birth, preterm rupture of membranes.

Comparison of blood loss following prophylactic oxytocin versus heat-stable carbetocin during the third stage of labor

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Background: Postpartum hemorrhage remains a leading cause of maternal mortality, particularly in low resource settings. Uterotonics are key to active of third stage of labor (AMTSL). While oxytocin is widely used in Kenya, its effectiveness may be comprised by cold-chain requirements. Heat-stable carbetocin (HSC), a long-acting oxytocin analog, offers greater temperature stability and may provide sustained uterine contraction.

Objective: To compare objectively measured postpartum blood loss following prophylactic administration of oxytocin versus heat-stable carbetocin among among women undergoing vaginal birth.

Methods: We conducted a prospective observational study across three facilities in Kiambu County over three months. Women received either oxytocin or HSC as part of routine AMTSL. Blood loss was measured using calibrated collection drapes immediately after uterotonic administration. Mean blood loss and the incidence of PPH were compared between groups using descriptive analyses.

Results: A total of 859 births were observed. Of these, 575 with complete objective blood measurements were included in the analysis, 503 (87%) received oxytocin and 72 (13%) received HSC. Women who received HSC had lower blood loss compared with those who received oxytocin.

Conclusion: The findings reinforce the effectiveness of HSC in the management of the third stage of labor. These findings suggest that carbetocin may be a valuable alternative uterotonic for the prevention of postpartum hemorrhage.

Keywords: carbetocin, oxytocin, postpartum hemorrhage, prophylaxis, third stage of labor, uterotonics

Detection of postpartum hemorrhage using visual estimation versus a calibrated blood collection drape

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Background: Accurate quantification of blood loss during birth is essential for the early

detection and timely management of postpartum hemorrhage (PPH). Visual estimation remains commonly used in many settings but is known to be inaccurate and frequently underestimates blood loss. Calibrated blood collection drapes provide objective measurement by collecting blood and allowing direct volume readings.

Objective: To compare the postpartum hemorrhage detection rates using visual estimation of blood loss versus a calibrated blood collection drape.

Methods: A before-and-after study was conducted among women undergoing vaginal birth in three facilities in Kiambu County. The preintervention phase, blood loss was assessed using visual estimation. In the intervention phase, calibrated drapes were used for objective quantification. The number and proportion of PPH cases before and after the introduction of calibrated drapes were compared descriptively.

Results: A total of 192 deliveries were observed in the preintervention phase and 806 deliveries in the intervention phase. Using visual estimation, 10 PPH cases (5%) were detected with 92 cases of PPH (11%) identified using calibrated drape. Detection of PPH was significantly higher with objective measurement using the drapes.

Conclusion: Objective measurement of blood loss using calibrated drapes improves detection of PPH compared with visual estimation. Routine use of calibrated drapes during childbirth may enhance timely detection and prompt treatment of PPH, thereby improving maternal outcomes.

Keywords: calibrated drape, Kiambu, postpartum hemorrhage, visual estimation

External cephalic version: A safe and underutilized strategy to reduce primary cesarean deliveries in low-resource settings

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Background: Rising cesarean delivery rates are associated with increased short- and long-term maternal and neonatal risks. External cephalic version (ECV) is a safe and cost-effective intervention that reduces primary cesarean delivery among women with breech presentation. Despite strong evidence supporting its efficacy, ECV remains underutilized, particularly in low-resource settings.

Methods: A descriptive evaluation of ECV procedures performed at Avenue Healthcare was conducted. Standardized protocols included pre-procedure counseling, cardiotocography (CTG), informed consent, tocolysis, ultrasound guidance, and post-procedure fetal monitoring. A two-operator technique was used, and all procedures were conducted in a hospital setting with immediate access for emergency cesarean delivery. Patient records were reviewed for fetal presentation, procedure success, delivery outcomes, complications, and factors associated with ECV success (parity, placental location, and amniotic fluid volume). Patient feedback regarding satisfaction and procedural discomfort was also documented.

Results: Forty ECVs were performed over three years. The overall success rate was 70%, comparable to published literature. Among successful ECVs, 70% resulted in vaginal delivery, contributing to a reduction in primary cesarean deliveries. Cesarean deliveries following successful ECV were mainly due to labor dystocia and non-reassuring fetal heart rate patterns. No major maternal or neonatal complications were observed. Transient fetal heart rate abnormalities occurred but resolved spontaneously with monitoring. Uptake of ECV was higher among women who received structured counseling and reassurance, highlighting the importance of patient education.

Conclusion: External cephalic version is a safe, feasible, and effective strategy for reducing primary cesarean deliveries in low-resource settings. Strengthening ECV programs through provider training, protocol standardization, and

patient education improve utilization and maternal outcomes.

Keywords: breech presentation, cesarean deliveries, external cephalic version, maternal outcomes.

Impact of structured, hand-on clinical mentorship program on healthcare worker competencies and maternal and perinatal outcomes in Suba West Sub-County

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Background: Suba West Sub-County is an island-based, hard-to-reach region with limited access to specialized maternal and neonatal care. Persistent skills gaps among frontline health providers, and delayed referrals have contributed to poor maternal and perinatal outcomes. To address these challenges, a structured, hands-on clinical mentorship model was introduced to strengthen provider competencies and improve quality of care.

Objective: To assess the impact of a structured, hands-on mentorship on healthcare worker competencies and maternal and perinatal outcomes.

Methods: A facility-based mentorship program was implemented across 11 health facilities providing maternal and child health services. Certified skilled mentors conducted regular on-site sessions emphasizing practical obstetric and newborn care, including emergency obstetric care, essential newborn care, threatened preterm care, neonatal resuscitation, use of the labor care guide, and respectful maternity care. The approach integrated bedside teaching, simulation drills, case reviews, and continuous performance feedback. Skills assessments were conducted after each session and documented

using a digital platform for tracking and follow up. Facility records were reviewed to compare key indicators before, during, and after implementation complemented by qualitative feedback from mentees and clients.

Results: 23 of 37 targeted healthcare workers completed the mentorship program. Facilities reported improved provider confidence, greater adherence to clinical guidelines, earlier identification and management of complications, appropriate use of labor care guide, and strengthened referral practices. No maternal deaths were reported in 2025. Perinatal mortality declined from an average of 20 per 1,000 live births over the preceding five years to 7 per 1,000 in 2025. Client satisfaction and provider motivation also improved.

Conclusion: A structured hands-on mentorship program was associated with improved healthcare worker competencies and better maternal and perinatal outcomes in this resource-constrained, hard-to-reach setting. Scaling up this model may help accelerate progress toward national maternal and newborn health targets.

Keywords: clinical simulation, hands-on mentorship, healthcare worker capacity, maternal outcomes, perinatal outcomes, Suba

Implementation of the 2025 WHO postpartum hemorrhage diagnostic criteria: Evidence and lessons from six countries

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Background: Postpartum haemorrhage (PPH) remains a leading cause of maternal mortality worldwide. To facilitate earlier diagnosis and timely management, the WHO introduced the

2025 diagnostic criteria based on objectively measured blood loss of ≥ 300 mL with any abnormal haemodynamic sign, or ≥ 500 mL, whichever occurs first within 24 hours after birth. We assessed the feasibility, fidelity, acceptability, impact and cost implications of implementing these criteria in routine practice.

Methods: We conducted a prospective, mixed-methods implementation study in 18 primary, secondary, and tertiary facilities across Colombia, India, Kenya, Nigeria, Tanzania, and Thailand between July 24 and October 1, 2025. Health workers were trained on the new diagnostic criteria and first-response treatment bundle. Observers prospectively recorded blood loss, haemodynamic signs, PPH diagnoses, and treatments for all births over five weeks ($n=5264$). Pre-training ($n=550$) and post-implementation ($n=342$) surveys, and 42 interviews were conducted. Quantitative and qualitative findings were integrated.

Results: Objective blood loss measurement and at least one postpartum clinical sign assessment were recorded for 83.0% (4361/5264) of births. Most health workers reported the criteria to be feasible (97.0%, 525/550) and acceptable (97.1%, 332/342). PPH incidence was higher using the new criteria (20.8%, 908/4361) compared with the ≥ 500 mL threshold (14.7%, 701/4760). Incidence was greater following cesarean birth (30.7%) than vaginal birth (13.7%). Early-stage adherence within five weeks was 54.1%, with higher adherence in vaginal births (85.6%) than cesarean births (34.5%). All women diagnosed with PPH received the first-response treatment bundle. The additional weighted mean treatment cost was US\$3.9 per woman (range US\$1.0–7.0). Health workers emphasized the need for reliable supplies, leadership support, and streamlined procurement mechanisms.

Conclusion: Implementation of the WHO PPH diagnostic criteria was feasible and acceptable, and was associated with increased detection of early PPH at modest additional cost. Strengthened systems and targeted support, particularly for cesarean births, are needed to optimize adherence and enable scale-up.

Funding: Gates Foundation (INV-063940) and UNDP/UNFPA/UNICEF/WHO/World Bank

Special Programme of Research, Development and Research Training in Human Reproduction.

Integrating obstetric point of care ultrasound into primary antenatal care services in Kenya: Associations with ANC timing and utilization

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Background: Early initiation of antenatal care (ANC) is a core priority of Kenya's Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) Framework and Primary Health Care (PHC), as it enables timely risk identification, appropriate referral, and continuity of care. However, late gestational age at first ANC visit remains common, particularly in primary-level facilities where most women first seek care. Limited access to essential diagnostics, including obstetric point of care ultrasound (O-POCUS), further constrains early risk stratification. This study assessed the integration of O-POCUS into routine ANC services and its association with ANC timing and utilization in public primary and secondary health facilities in Kenya.

Methods: As part of a multi-county RMNCAH service-strengthening initiative, 500 healthcare workers from 228 level 2–4 public facilities across eight counties were trained using a five-day competency-based O-POCUS curriculum. Training focused on five priority obstetric assessments: fetal activity, number of fetuses, amniotic fluid volume, placental location, and fetal presentation. Routine ANC register data were abstracted from 114 facilities (94 basic

emergency obstetric and newborn care (BEmONC) and 20 comprehensive emergency obstetric and newborn care (CEmONC)) across three timepoints: six months before pre-intervention, six months post-integration, and six months following program strengthening through supportive supervision and mentorship. Facility-level ANC indicators were summarized by timepoint and facility type.

Results: Across all facilities, the mean gestational age at first ANC visit decreased from 18 weeks pre-integration to 16.5 weeks following O-POCUS integration. BEmONC facilities demonstrated a notable increase in the proportion of women attending their first ANC visit before 24 weeks' gestation, while changes in CEmONC facilities were modest. Approximately 70% of women attended four or more ANC visits across the three timepoints, with no significant change in overall ANC visit frequency.

Conclusion: Integrating O-POCUS into primary-level ANC services was associated with earlier initiation of antenatal care, particularly in BEmONC facilities. These findings support Kenya's RMNCAH and PHC priorities and suggest that O-POCUS may strengthen early risk stratification and referral pathways, with potential to enhance the quality of ANC within the devolved health system.

Silent hypoxemia in the labor ward: Optical evidence of pulse oximeter bias relevant to Kenyan mothers

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Background: Pulse oximetry is the standard of care for detecting maternal hypoxemia during pregnancy, labor, and the postpartum period. Emerging evidence demonstrates systematic overestimation of oxygen saturation (SpO₂) in individuals with darker skin pigmentation. Similar optical bias has been reported in neonatology, where transcutaneous bilirubin (TcB) meters underestimate bilirubin levels in darker-skinned infants due to melanin-related optical attenuation. Because both TcB meters and pulse oximeters rely on reflected red and near-infrared light, neonatal optical data provide a biologically plausible framework for understanding potential maternal oximetry bias.

Methods: A comparative cross-sectional spectrophotometric analysis was conducted using neonatal skin data from 77 Kenyan neonates at Kiambu County Level 5 Hospital and 16 Japanese neonates at Nihon University Hospital, Tokyo. Skin reflectance was measured at 660 nm, the red wavelength used by pulse oximeters to detect deoxygenated hemoglobin, using a Konica Minolta CM-700d spectrophotometer. Skin pigmentation was classified using the Individual Typology Angle (ITA) system.

Results: Kenyan neonates clustered predominantly within darker ITA categories (III–V) and demonstrated significantly lower reflectance at 660 nm compared with Japanese neonates (mean difference -17.52 ; $p < 0.001$). This reduction persisted outside bilirubin absorption peaks (450–460 nm), supporting melanin concentration as the dominant determinant of red-light signal attenuation.

Conclusion: These findings establish a biological plausible optical baseline relevant to Kenyan mothers and suggest that standard pulse oximeters, largely calibrated on lighter skin phenotypes, may function sub-optimally in darker-skinned populations. This raises concern for unrecognized or 'silent' maternal hypoxemia and supports the need for local validation of oximetry devices in labor wards to ensure equitable and accurate monitoring.

Simplified magnesium sulfate regimen for preeclampsia and eclampsia care in low- and middle-income countries: Protocol for the STEP-Mag phase III noninferiority trial

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1. University of Nairobi- STEP-Mag Trial (Kenya)

Background: Preeclampsia and eclampsia are leading causes of maternal mortality and severe morbidity worldwide, accounting for substantial proportion of hypertensive disorder-related deaths in low- and middle-income countries. Magnesium sulfate is the standard therapy for seizure prophylaxis; however, current regimens are complex and resource-intensive, limiting timely administration in lower-level facilities. Simplified dosing strategies may improve access while maintaining effectiveness and safety.

Objectives: To evaluate whether a simplified intramuscular magnesium sulfate regimen is noninferior to standard Pritchard or Zuspan regimens in preventing eclamptic seizures and superior in reducing magnesium-related adverse events.

Methods: STEP-Mag is a phase III, randomized, open label, active-controlled multicenter, non-inferiority trial conducted across seven low and middle-income countries. In Kenya, recruitment occurs at three public maternity hospitals (Mama Lucy Kibaki, Mbagathi, and Wamalwa Kijana). A total 720 women with preeclampsia during pregnancy, labor, or within 24 hours of postpartum will be enrolled. Participants are randomized to receive either a simplified regimen (10 g intramuscularly every 12 hours for two doses) or a standard Pritchard or Zuspan regimen. The primary outcome is occurrence of eclamptic seizure. Secondary outcomes include adverse events consistent with magnesium toxicity, maternal complications, and feasibility

of implementation. Clinical data are recorded prospectively and managed using REDCap.

Conclusion: If the simplified regimen demonstrates noninferior seizure prevention with fewer adverse effects, it could expand access to magnesium sulfate therapy, reduce resource requirements, and support task sharing in lower-level facilities, thereby strengthening preeclampsia and eclampsia care in resource-constrained settings.

Keywords: eclampsia, hypertension, preeclampsia magnesium sulfate, seizure

Successful term delivery in bicornuate uterus: A case report

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Background: Bicornuate uterus is a rare Müllerian anomaly, affecting approximately 0.4% of women. It is associated with adverse reproductive outcomes including malpresentation, fetal growth restriction, preterm birth, cervical insufficiency and postpartum hemorrhage.

Case presentation: A 34-year-old gravida, para 2+0 presented for antenatal care at 16 weeks 4 days gestation with a known diagnosis of bicornuate uterus (biconis unicollis) (BCU) and cervical insufficiency, with McDonald cervical cerclage in situ. Her antenatal investigations were unremarkable. She had two previous cesarean deliveries, each involving a different uterine cornu. Pregnancy management included low-dose aspirin, oral progesterone, hematinics, and calcium supplements. At 17 weeks' gestation, she sustained a left malleolus fracture following a fall and was co-managed with an orthopedic surgeon. Despite this intercurrent complication, the pregnancy progressed without obstetric compromise. An elective cesarean

delivery was performed at term with concurrent bilateral tubal ligation and removal of the cervical cerclage. A live female infant was delivered in good condition, weighing 2,960 g. The post-operative course was uneventful, and the patient received thromboprophylaxis.

Conclusion: Early identification of bicornuate uterus and coordinated multidisciplinary care are essential for optimizing maternal and fetal outcomes. This case demonstrates that successful term delivery is achievable in women with complex uterine anomalies when individualized surveillance and collaborative management are employed.

Keywords: bicornuate uterus, high-risk pregnancy, Müllerian anomaly, multidisciplinary care

Usability, feasibility, and acceptability of a wireless fetal ECG device for intrapartum monitoring in a low-resource setting: A pilot study

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1. University of Nairobi - Fetal Lite Study (Kenya)

Background: Continuous intrapartum fetal monitoring is essential for detecting fetal

compromise. However, conventional cardiotocography (CTG) may limit maternal mobility, requires specialized interpretation, and can be difficult to implement in low-resource settings. Wireless fetal electrocardiography (fECG) devices may offer a more portable and user-friendly alternative.

Objective: To evaluate the usability, feasibility, acceptability, and safety of a wireless fECG device (Fetal Lite) for intrapartum monitoring among healthcare providers in a tertiary hospital labor ward.

Methods: This mixed-methods observational pilot study will be conducted at the Kenyatta National Hospital. Twenty midwives will be trained on device use and each will monitor 10 laboring women requiring intrapartum fetal surveillance (n=200). Quantitative measures will be including on device performance, usability, acceptability, and adverse events will be collected, alongside qualitative data from provider questionnaires and focus group discussions (FGDs). Thematic analysis will be used to identify key barriers and facilitators to device implementation.

Expected outcomes: This pilot study will inform the practicality and implementation requirements for integrating wireless fECG into routine intrapartum care in low-resource settings. Findings may guide future scale-up strategies to improve maternal comfort and strengthen fetal monitoring capacity.

Keywords: acceptability, feasibility, Fetal Lite, intrapartum monitoring, wireless fetal ECG

Mental Health in Reproductive Health

Work hours, occupational stress, and pregnancy loss among female surgical residents and specialists: Preliminary findings from a cross-sectional study

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Background: Female surgeons, anesthesiologists, and surgical residents frequently work prolonged hours, undertake night duties, and experience high occupational stress during their reproductive years. Although pregnancy loss is a common adverse reproductive outcome, its burden and occupational correlates among women in surgical specialties remain underexplored, particularly in resource-limited training settings.

Objective: To determine the prevalence of pregnancy loss among female surgical residents

and specialists and to assess associations with work hours and occupational stress.

Methods: This cross-sectional study used a structured, self-administered questionnaire distributed to female residents, surgeons, and anesthesiologists. Data collected included sociodemographic characteristics, specialty, weekly working hours, on-call frequency, night shift exposure, perceived work-related stress, and reproductive history. Pregnancy loss was defined as spontaneous miscarriage, ectopic pregnancy, or other nonviable pregnancy outcomes. Descriptive and exploratory analyses were conducted to examine patterns of pregnancy loss across work-related exposures.

Results: A substantial proportion of respondents reported experiencing at least one pregnancy loss. Losses were more frequently reported among participants working longer weekly hours, undertaking frequent on-call duties, and engaging in regular night shifts. Many events occurred during periods of intensive training or high workload. Participants also described delayed pregnancy disclosure, limited workplace accommodations, and difficulties attending antenatal care during surgical training.

Conclusion: Pregnancy loss represents a potentially significant and underrecognized reproductive health burden among women in surgical specialties and occurs in the context of high work intensity and occupational stress. Although causality cannot be inferred, these findings highlight modifiable workplace factors and underscore the need for pregnancy-sensitive training policies, workload adjustments, and institutional support systems.

Policy and Advocacy in Reproductive Health

Advancing policy advocacy for maternal health through structured civil society-parliamentary engagement in Kenya

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Background: Kenya continues to experience a high maternal mortality burden despite recent progress, with deaths remaining above global targets. Postpartum hemorrhage remains a leading cause of mortality, while gaps in antenatal care coverage and inequities in access, and variable quality of services hinder improvement. Strengthened legislative and policy frameworks for Reproductive, Maternal, Newborn, Child, Adolescent Health and Nutrition (RMNCAH+N) are critical to accelerating progress. The Health NGOs Network (HENNET), a national coalition of health civil society organizations, prioritizes policy advocacy to support evidence-informed reforms aligned with constitutional commitments and national development agendas.

Methods: A high-level parliamentary policy dialog was convened on 20 November 2025 in Nairobi by HENNET in partnership with the Kenya Women Parliamentary Association (KEWOPA). Participants included national and county legislators, obstetric and reproductive health experts, policymakers, and civil society representatives. Evidence from legislative reviews, policy briefs were presented to inform discussions. Meeting reports and deliberations were documented and thematically analyzed to identify priority actions and commitments related RMNCAH+N legislation.

Results: The dialogue advanced consensus on three priority legislative instruments: the Maternal, Newborn and Child Health Bill (2023), the Assisted Reproductive Technology Bill (2022), and the Breastfeeding Mothers Bill (2024). Key outputs included bipartisan commitments to fast-track legislative processes, proposals for sub-county implementation pilots, and the formation of a KEWOPA Maternal and Newborn Health champions' network.

Conclusion: Structured engagement between civil society and legislators is feasible and may strengthen accountability and accelerate RMNCAH+N policy reforms. Such collaborative advocacy approaches can support improved governance and contribute to reductions in preventable maternal and newborn deaths.

Keywords: civil society engagement, health legislation, Kenya, maternal health, policy advocacy

County-led weekly MPDSR meetings and maternal-perinatal outcomes: Early from Homa Bay County

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Background: Homa Bay County has historically experienced a high burden of maternal and perinatal mortality, partly attributed to delayed referrals, inconsistent clinical audits, and weak accountability mechanisms. In January 2024, the County Department of Health institutionalized weekly Maternal and Perinatal Death Surveillance and Response (MPDSR) meetings, chaired by county leadership, to enable real-time case review, tracking of corrective actions, and strengthened accountability.

Methods: A retrospective before-after trend analysis of DHIS2 MOH 711 (Revised 2020) data was conducted for 2021–2025. Annual maternal deaths, live births, and maternal mortality ratios were analyzed, alongside perinatal deaths including fresh stillbirths, macerated stillbirths, and early neonatal deaths (0–7 days). Trends before and after institutionalization of weekly MPDSR meetings were compared.

Results: Maternal deaths peaked at 39 in 2023 and declined to 28 in 2024 and 22 in 2025, representing a 51% reduction within two years of MPDSR implementation. Deaths among women aged ≥ 25 years, whose deaths decreased from 29 in 2023 to 14 in 2025 (52% reduction), while annual live births remained relatively stable (30,825 in 2024; 27,996 in 2025). The facility maternal mortality ratio declined from 122.9 to 74.7 per 100,000 live births per 100,000 live births in 2023. Perinatal outcomes also improved, with total perinatal deaths decreasing from 557 in 2023 to 479 in 2025 (14% reduction). Fresh stillbirths declined from 245 in 2021 to 159 in 2025, and early neonatal deaths reduced from 152 in 2023 to 117 in 2025.

Conclusion: Institutionalization of county-led weekly MPDSR meetings was associated with substantial reductions in maternal and perinatal deaths over two years. Strengthened leadership oversight, regular audit, and systematic follow-up of action points may enhance accountability and quality of care. This approach shows promise as a scalable governance and quality-improvement strategy for improving maternal and newborn outcomes in resource-constrained settings.

Keywords: health systems strengthening, maternal mortality, MPDSR, perinatal mortality, quality improvement

Design thinking–driven community health education model to improve preventive health outcomes among women and adolescent girls in Kenya

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Background: Women and adolescent girls in Kenya continue to experience preventable adverse health outcomes related to sexual and

reproductive health, cervical cancer, maternal health, and mental health. Limited access to accurate information, stigma, delayed health-seeking behavior contribute to low uptake of preventive services, contraception, human papillomavirus (HPV) vaccination, cervical cancer screening, and timely antenatal care.

Objective: To describe the development, implementation, and early outcomes of a design thinking–based community health education initiative aimed at improving health knowledge, preventive awareness, and service linkage.

Methods: A design thinking framework (empathy, problem definition, ideation, prototyping, testing) guided program development. A hybrid delivery model combined digital outreach (TikTok live sessions and Zoom discussions), school-based education, and community engagement. Topics included sexual and reproductive health, sexually transmitted infection prevention, cervical cancer awareness, HPV vaccination, maternal health, mental health, and referral pathways. Data were collected using structured questionnaires, focus group discussions, and attendance records, with pre- and post-session assessments and participant feedback.

Results: TikTok sessions reached 100–150 participants per session, while Zoom sessions engaged 45–50 participants. Approximately 200 secondary school students completed questionnaires. Participants were predominantly young adults and students. Baseline assessments showed major gaps in preventive practices: 81% demonstrated poor health knowledge, 55% reported stigma-related barriers to care, 69% were not using contraception, 69% had never undergone cancer screening, 15% missed school due to menstruation-related challenges, and 81% reported persistent stress or anxiety. Post-session feedback indicated improved awareness and increased intention to seek preventive services.

Conclusion: A design thinking–driven, community-centered education model integrating digital and school platforms is feasible and shows potential to strengthen preventive health knowledge and service uptake among women and adolescent girls in Kenya.

The approach may provide a scalable strategy for improving community health outcomes.

Improving post-abortion care documentation through values clarification and attitude transformation (VCAT) trainings in Suba West sub-County: A pre-post evaluation

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Background: High-quality clinical documentation is essential for evidence-based decision-making in sexual and reproductive health services, including post-abortion care (PAC). In Suba West sub-County, gaps in PAC documentation limited the use of routine data for quality improvement, planning, and resource allocation.

Objective: To assess the effect of values clarification and attitude transformation (VCAT) training and sensitization on the completeness and quality of PAC case documentation in Suba West sub-County.

Methods: A pre-post intervention evaluation was conducted across health facilities providing PAC services. Healthcare workers and community health promoters received structured VCAT training and sensitization sessions focused on accurate documentation, standardized PAC registers and reporting tools, and provision of ethical, nonjudgmental care. Routine PAC registers and patient records were reviewed before and after implementation. Indicators assessed included number of cases reported, completeness of demographic and clinical information documentation of management provided, post-abortion family planning counseling and uptake, and follow-up records. Documentation performance was compared descriptively across periods.

Results: Post-intervention assessments demonstrated improvement completeness and

consistency of PAC documentation. Facilities showed better recording of clinical assessments, management details, and post-abortion family planning services, with increased use of standardized Ministry of Health tools. The average number of documented PAC cases increased from 15 annually (2020-2023) to 30 annually (2024-2025). During the intervention period, earlier identification of complications and timely management were observed, no abortion-related deaths were recorded compared with three deaths in the preceding period. Healthcare workers and community health promoters reported increased confidence, reduced stigma, and greater recognition of documentation as a tool for accountability and decision-making.

Conclusion: VCAT trainings and sensitization were associated with improved completeness and quality of PAC documentation in Suba West sub-County. Integrating VCAT approaches into routine capacity-building efforts may strengthen data quality, support evidence-based decision-making, and enhance PAC service delivery.

Keywords: case documentation, health worker training, quality improvement, post-abortion care, VCAT

Patient experiences and attitudes toward gynecological examination at Kenyatta National Hospital: A cross-sectional study

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Background: Gynecological examinations (GE) are essential for reproductive health care but may be associated with discomfort, anxiety, and sociocultural barriers that influence care-seeking behavior. This study assessed patient experiences, attitudes, and factors associated

with perceived autonomy regarding gynecological examinations at Kenyatta National Hospital.

Methods: A cross-sectional study was conducted among women attending the gynecology outpatient clinic. Structured questionnaires collected data on sociodemographic characteristics, prior examination experiences, attitudes, and perceived decision-making autonomy. Descriptive statistics summarized responses, and inferential analyses evaluated associations between age, education, marital status, and healthcare-seeking behavior.

Results: Ninety-nine women participated, of whom 54.5% had previously undergone a gynecological examination. Most reported positive experiences; however, 9.1% described negative experiences, citing pain during speculum insertion, inadequate communication, and feelings of vulnerability. Younger women (18–25 years) more frequently reported positive attitudes (63.2%), whereas women aged 36–45 years reported higher apprehension (47.6%). Married participants were more likely than single participants to agree that a partner could influence or refuse their examination (27.5% vs 10.5%). Younger women demonstrated higher perceived autonomy, with 94.7% strongly agreeing they could seek an examination independently compared with lower proportions among older age groups ($p = 0.046$). Most respondents (84.8%) believed prior sexual abuse could affect attitudes toward examination, and 81.8% indicated willingness to seek future routine care.

Conclusion: Although most women expressed willingness to undergo gynecological examinations, discomfort, communication gaps, and partner influence were associated with negative attitudes and reduced perceived autonomy. Addressing patient-centered communication and supportive care practices may improve examination experiences and healthcare utilization.

Keywords: autonomy, gynecological examination, Kenya, patient attitudes, patient experience

The weight loss boom and ‘Ozempic babies’: Reproductive implications of GLP-1-based pharmacotherapies and bariatric interventions in Kenya and Africa: A narrative review

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Background: Pharmacologic and procedural weight-loss interventions are increasingly used among women of reproductive age in Kenya and across Africa. Glucagon-like peptide-1 receptor agonists (GLP-1RAs), newer dual incretin receptor agonists and emerging triple incretin receptor agonists, and bariatric procedures such as sleeve gastrectomy and intragastric balloon placement improve metabolic health but may also influence reproductive physiology. These therapies alter endocrine pathways that regulate ovulation, fertility, and pregnancy outcomes, creating emerging clinical considerations for obstetric and gynecologic care.

Objective: To review the biological mechanisms and available clinical evidence linking incretin-based pharmacotherapies and bariatric interventions with reproductive outcomes, and to outline implications for gynecologic and fertility practice in African settings.

Methods: A narrative synthesis of peer-reviewed experimental and clinical literature examining incretin signaling, weight-loss therapies, bariatric surgery, and reproductive outcomes was conducted.

Results: GLP-1 receptors are expressed within the hypothalamus and ovary, supporting a mechanistic link between energy balance and the hypothalamic–pituitary–ovarian axis. In women with obesity and polycystic ovary syndrome, GLP-1RAs improve insulin sensitivity, reduce weight, decrease hyperandrogenism, and enhance ovulatory function and menstrual regularity. Bariatric interventions similarly restore ovulation through significant weight reduction and hormonal modulation. However, improved fertility may increase the risk of unintended pregnancy without effective contraception. Incretin-based therapies are contraindicated during pregnancy because of

limited human safety data, and conception during the rapid post-bariatric weight-loss phase is associated with nutritional deficiencies and adverse perinatal outcomes. Evidence regarding direct effects on oocyte quality, endometrial receptivity, and assisted reproductive technology outcomes remains limited.

Conclusion: As weight-loss pharmacotherapies and bariatric procedures become more widespread in Africa, clinicians should integrate fertility counseling, nutritional monitoring, and appropriate pregnancy planning into routine care. Further prospective studies in African populations are needed to clarify reproductive safety and inform context-specific clinical guidelines.

Keywords: Africa, bariatric surgery, GLP-1 receptor agonists, fertility, reproductive health, obesity, weight loss

Quality and effect of maternal death reviews at Jaramogi Oginga Odinga Teaching and Referral Hospital, Western Kenya: A retrospective study

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Background: Maternal mortality remains a major global health challenge, with low- and middle-income countries accounting for the majority of deaths. Although maternal death

surveillance and response (MDSR) processes are intended to improve accountability and quality of care, their effectiveness depends on the completeness, timeliness, and quality of reviews. Kenya reports an estimated maternal mortality ratio of 355 deaths per 100,000 live births despite ongoing maternal death review implementation. This study assessed the quality and effect of maternal death reviews at a tertiary referral hospital in western Kenya.

Methods: A five-year retrospective review of 111 maternal death review forms was conducted. Variables assessed included completeness of documentation, timeliness of notification (within 24 hours), and timeliness of review. Quality indicators were dichotomized (yes/no). Statistical analysis was performed using R version 4.4.1. Linear regression evaluated the relationship between review quality scores and trends in maternal mortality.

Results: The median interquartile range (IQR) age was 26 (22-33) years, and the median gestational age at death was 33 (30-37) weeks. Documentation quality was suboptimal, with 7% of the forms were complete, with 57.6% notified and 16.2% reviewed within seven days. (1.76 (40%)) compliance observed in 2020. Across the five years, the mean quality score was 1.89 (47.3%). No statistically significant association was found between review quality and changes in the maternal mortality ration in the maternal mortality ratio ($P=0.482$).

Conclusion: Maternal death reviews at this facility were frequently incomplete and delayed, limiting their potential impact on improving outcomes. Strengthening timely notification, standardized documentation, staff training, and accountability mechanisms may enhance the effectiveness of the MDSR process.

Keywords: documentation quality, maternal death review, maternal mortality, timeliness

Translational Research in Reproductive Health

Determinants of antenatal care initiation among pregnant women at a tertiary facility in Kenya under the PEARLS trial: A qualitative descriptive study

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Background: The World Health Organization recommends initiation of antenatal care (ANC) within the first trimester (≤ 12 weeks' gestation). Early ANC provides an essential foundation for a positive pregnancy experience through timely preventive services, including micronutrient supplementation, immunization, deworming, and early detection and management of complications. Despite these recommendations, delayed ANC initiation remains common in many settings.

Objective: To explore the determinants of ANC initiation among pregnant women attending a tertiary facility in Kenya.

Methods: A qualitative descriptive study design was employed. Three focus group discussions (FGDs) were performed with 28 participants (9, 10, and 9 per group) recruited from the antenatal clinic and the postnatal ward. Informed consent was obtained prior to participation. Discussions explored timing of ANC initiation and factors influencing care-seeking decisions.

Results: Ten participants (35.7%) initiated ANC in the first trimester, 14 (50%) in the second trimester, and 4 (14.3%) in the third trimester. Key determinants of delayed initiation included perceived absence of illness or complications, financial barriers related to investigations and services, peer and social influences to delay care until pregnancy was visible, and concerns about frequent visits and poor tolerance of supplements.

Conclusion: Most women initiated ANC after the first trimester, contrary to WHO recommendations. Delayed initiation was influenced by perceived wellness, financial constraints, social norms, and misconceptions about ANC requirements. Strengthening community health education, reducing out-of-pocket costs, and addressing misinformation may promote earlier ANC uptake and improve maternal outcomes.

Keywords: antenatal care, timing of initiation, determinants, PEARLS trial

Research to Expand Access to Heat-stable Carbetocin for the Treatment of PPH (REACH): A multicenter randomized noninferiority trial

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Background: Maintaining the cold chain for oxytocin, the World Health Organization (WHO)-recommended first-line uterotonic for postpartum hemorrhage (PPH), remains challenging in many low-resource settings where most maternal deaths occur. Heat-stable carbetocin (HSC) a long-acting oxytocin analog with a longer half-life and prolonged uterotonic effects, may offer a practical alternative. However, evidence on its safety and effectiveness as first-line treatment for established PPH, particularly among women who already received HSC prophylaxis, remains limited.

Objectives: To determine whether HSC is non-inferior to oxytocin for treatment of PPH in preventing additional blood loss ≥ 500 ml after randomization, and to compare hemodynamic outcomes and cost-effectiveness between treatment arms.

Methods: REACH is a phase III, hospital-based, parallel, two-arm, individually- randomized, double-blind, active-controlled, international multicenter, noninferiority trial. Women will be randomized to receive either intravenous HSC or oxytocin as the ‘first-line’ uterotonic for PPH treatment. The trial will be conducted in 20 tertiary level hospitals within the WHO CHAMPION Trial Network across Argentina, Kenya, India, Nigeria, Uganda, South Africa, and

the United Kingdom. In Kenya, participating sites include Pumwani Maternity Hospital and Machakos Level 5 Hospital.

Expected outcomes: The primary endpoint is the proportion of women with additional vaginal blood loss of ≥ 500 ml within 90 minutes of randomization.

Keywords: heat-stable carbetocin; postpartum hemorrhage, oxytocin, uterotonics

Urogynecology

Frontiers in urogynecology - laparoscopic lateral wall suspension: A case report

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Background: Open and laparoscopic sacrocolpopexy remain the gold standard for management of apical pelvic organ prolapse but are technically demanding and are associated with risks of organ and vascular injuries. Laparoscopic lateral suspension (LLS) has emerged as a minimally invasive alternative that avoids presacral dissection while providing durable apical support.

Case presentation: A 76-year-old woman presented with stage IV post-hysterectomy vaginal vault prolapse 13 years after total abdominal, accompanied by cystocele, rectocele, vaginal bulge symptoms and voiding dysfunction. Surgical management employed a hybrid approach combining anterior and posterior colpoperineorrhaphy with LLS. A polypropylene mesh was anchored to the vaginal vault and suspended retroperitoneally to the external oblique aponeurosis through lateral accessory ports, recreating physiological apical analogs to the cardinal-uterosacral ligament complex. The postoperative course was uncomplicated, and the patient was discharged postoperative day three. At two-month follow-up, symptoms had significantly improved with satisfactory bladder emptying and clinical examination confirming restoration of normal pelvic anatomy without recurrent prolapse.

Conclusion: LLS is a feasible and effective minimally invasive option for managing post-hysterectomy vault prolapse. By proving lateral, tension-free apical support while avoiding presacral dissection, the technique may reduce operative morbidity and represents a valuable alternative to sacrocolpopexy, particularly in elderly or high-risk patients.

Keywords: minimally invasive surgery, laparoscopy, laparoscopic lateral suspension, pelvic organ prolapse, sacrocolpopexy, post-hysterectomy vault prolapse

Management of vaginismus-associated infertility using botulinum toxin: A case report

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Background: Vaginismus is a psychosexual disorder characterized by involuntary pelvic floor muscle contraction that prevents or severely limits vaginal penetration, often resulting in painful intercourse, unconsummated marriages and, infertility. Management is not standardized, and typically includes cognitive behavioral therapy (CBT), pelvic floor physiotherapy, and progressive vaginal dilatation. Botulinum toxin (BoNT) injection into the pelvic floor musculature has emerged as a potential option for refractory cases. Evidence suggests that BoNT improves penetration and sexual function with few reversible adverse effects.

Case presentation: A 40-year-old nulliparous woman presented with a lifelong inability to achieve penetrative sexual intercourse despite desire for conception. She reported no history of gynaecologic surgery, trauma, or endocrine disease. Examination revealed a markedly tight introitus, near-intact hymenal tissue, and significant involuntary pelvic floor muscle contraction that precluded digital vaginal examination. Severe primary vaginismus was diagnosed. After counseling, she underwent BoNT injection into the pelvic floor muscles under anesthesia, followed by insertion of silicone vaginal dilator and structured home-based daily dilatation program for four weeks. Within three weeks, she achieved painless penetrative with significant improvement in sexual function. She subsequently conceived spontaneously and later delivered conception by cesarian section.

Conclusion: Botulinum toxin injection combined with vaginal may be an effective treatment for severe refractory vaginismus and can restore natural fertility in women with penetration-related infertility. This minimally invasive approach offers a promising adjunct where conventional therapies have failed.

Keywords: botulinum toxin, infertility, sexual dysfunction, vaginal dilatation, vaginismus.
