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Gynaecologic Oncology Society of Kenya (GOSK) clinical management protocol for cervical cancer in Kenya - 2026

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Abstract

Objective: To develop a standardized, evidence-based clinical management protocol for cervical cancer in Kenya through adaptation and contextualization of relevant international clinical practice guidelines.

Methods: The protocol was developed using a guideline adaptation approach to align recommendations from international clinical practice guidelines with the Kenyan healthcare and resource context. A multidisciplinary development group comprising gynecologic oncologists, pathologists, radiologists, oncology nurses, pharmacists, radiation oncologists, public health specialists, and patient representatives participated in the process. Relevant guidelines were identified through searches of PubMed and Google Scholar and independently appraised using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) instrument. Selected guidelines were reviewed and their recommendations adapted and contextualized to the Kenyan setting.

Results: Four clinical practice guidelines were identified and independently appraised using AGREE II. Three guidelines were selected as source guidelines for adaptation: the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Cervical Cancer; the American Society of Clinical Oncology (ASCO) Resource-Stratified Guideline for the Management and Care of Women With Invasive Cervical Cancer; and the Korean Society of Gynecologic Oncology (KSGO) Guidelines for the Management of Cervical Cancer. The resulting protocol addresses the diagnosis, staging, treatment, surveillance, and management of recurrent cervical cancer within the Kenyan healthcare context.

Recommendations: The protocol provides evidence-based recommendations for the diagnosis, stage-specific treatment, surveillance, and management of recurrent cervical cancer, including supportive and palliative care, contextualized to the Kenyan healthcare setting.

Keywords: Cervical cancer; Clinical Protocol; Gynecologic Oncology; Kenya

Summary of recommendations

This protocol is intended for healthcare professionals involved in the care of patients with cervical cancer, including gynecologic oncologists, medical and radiation oncologists, pathologists, radiologists, gynecologists, primary care physicians, oncology nurses, pharmacists, public health specialists, palliative care providers, and allied health professionals. It is also relevant to health administrators and policymakers involved in the planning and delivery of cancer services.

The protocol applies to patients with suspected or confirmed cervical cancer and covers the continuum of care from diagnostic evaluation and staging through treatment, surveillance, management of recurrent disease, supportive care, and palliation. The principal recommendations are summarized in Tables 1–10.

List of abbreviations	
AGC	Atypical Glandular cells
AGREE II	Appraisal of Guidelines for Research and Evaluation II
ASC-H	Atypical Squamous Cells that Cannot Exclude HSIL
ASCO	The American Society of Clinical Oncology
AUC	Area Under the Curve
CT	Computed Tomography
DVT	Deep Venous Thrombosis
EBRT	External Beam Radiation Therapy
ESMO	European Society of Medical Oncology
EUA	Examination Under Anesthesia
FIGO	International Federation of Gynecology and Obstetrics
GOSK	Gynecologic Oncology Society of Kenya
GY	Grays
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HSIL	High Grade Squamous Intraepithelial Lesion
IARC	International Agency for Research on Cancer
KSGO	The Korean Society of Gynecological Oncology
LEEP	Loop Electrosurgical Excision Procedure
LMICs	Low and Middle Income countries
LVSI	Lymph vascular Space Invasion
LWMH	Low Molecular Weight Heparin
MDT	Multidisciplinary Team
MRI	Magnetic Resonance Imaging
NACT	Neoadjuvant Chemotherapy
NCCN	National Comprehensive Cancer Network
PD-L1	Programmed Death-Ligand 1
PET-CT	Positron Emission Tomography – Computed Tomography
PLND	Pelvic Lymph Node Dissection
UFH	Unfractionated Heparin
VTE	Venous Thromboembolism
VVF	Vesicovaginal Fistula
WHO	World Health Organization

Table 1 summarizes the GOSK recommendations for the clinical evaluation, diagnostic confirmation, laboratory assessment, and imaging of patients with suspected cervical cancer.

Table 1: Summary of GOSK recommendations for the diagnostic evaluation of cervical cancer

Clinical domain	GOSK recommendations
Clinical Evaluation	Early-stage cervical cancer may be asymptomatic. Clinical evaluation should begin with a structured history, with particular attention to symptoms suggestive of cervical cancer and advanced disease, including: • irregular uterine bleeding; • foul-smelling vaginal discharge; • lower back or pelvic pain; • unexplained weight loss; • dyspareunia; and • symptoms suggestive of obstructive uropathy, including nausea, vomiting, oliguria, or altered mental status related to uremia. Advanced disease may present with vesicovaginal or rectovaginal fistulae.
Examination	**Pelvic examination:** A comprehensive general and systemic examination should be performed, including assessment for potential metastatic sites such as the liver, lungs, and central nervous system. A comprehensive pelvic examination should include speculum, bimanual, and rectovaginal examination to: • identify a suspicious cervical lesion or mass; • assess vaginal, parametrial, and pelvic wall involvement; • estimate the clinical stage of disease; • assess for locally advanced or metastatic disease; and • facilitate biopsy of visible cervical lesions where clinically appropriate. **Examination under anaesthesia (EUA):** EUA may be performed when adequate pelvic assessment cannot be achieved during an office examination or when detailed assessment of disease extent is required. It may be used to: • assess local tumor extent and improve staging; • evaluate parametrial involvement, vaginal extension, pelvic sidewall involvement, and adjacent organ invasion; • facilitate biopsy when an adequate office biopsy cannot be obtained or is poorly tolerated; and • assist treatment planning, particularly in patients with bulky, locally advanced, or advanced-stage disease.
Biopsy	**Histological confirmation** is required for the definitive diagnosis of cervical cancer: • **Colposcopy-directed biopsy** can be performed on patients who do not have visible cervical lesions but present with either of the following: ▪ Patients with high-grade screening results which include pap tests showing high grade squamous intraepithelial lesion (HSIL), atypical squamous cells that cannot exclude HSIL (ASC-H), or atypical glandular cells (AGC). ▪ Patients with high-risk Human Papilloma Virus (HPV) strains: positive testing for HPV 16 or HPV 18, which are mostly associated with cervical cancer. ▪ Persistent HPV infection: Positive high-risk HPV test results for two or more consecutive years, even if cytology (the pap test) remains normal. ▪ High-risk population: Patients who are immunocompromised, such as those living with HIV, who show low-grade or worse cytological abnormalities. • Patients with visible cervical lesions suspicious for early-stage disease (stages I–II) should be considered for biopsy with EUA, especially where adequate office biopsy cannot be obtained or detailed assessment of local disease extent is required. • Patients with visible lesions and advanced-stage disease (stages III–IV) may undergo biopsy without anesthesia. However, biopsy during EUA is acceptable when clinically indicated or when the patient is already undergoing EUA for assessment. To enhance diagnostic yield, necrotic tissue should be avoided during punch biopsy.
Laboratory evaluation	Laboratory investigations are not diagnostic of cervical cancer but should be performed to assess possible metastatic disease, establish baseline fitness for treatment, and guide treatment planning. Recommended investigations include:

Clinical domain	GOSK recommendations
	• full hemogram; • renal function tests; • liver function tests; • HIV testing; and • urinalysis.
Imaging	All patients with confirmed cervical cancer should undergo complete radiologic staging as follows: ▪ Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or abdominopelvic MRI should be performed to assess local disease extent and metastatic disease. MRI is preferred for local pelvic staging where available; however, CT remains an acceptable alternative in resource-limited settings where MRI is not available. PET-CT may be used as the primary staging imaging modality where available or when there are equivocal findings on conventional imaging. In the absence of CT chest imaging, a chest X-ray may be performed to evaluate for pulmonary metastasis. In the absence of CT/MRI Abdominal Pelvis, abdominopelvic ultrasound can be performed as the initial imaging modality to assess the cervical mass and evaluate disease extent. Then the patient should be referred to resourceful setting for complete radiologic staging as above. Cystoscopy and/or colonoscopy may be performed when there is suspicion of bladder or rectal involvement.

Table 2 summarizes the GOSK treatment recommendations according to FIGO stage.

Table 2: Summary of GOSK recommendations for stage-specific management of invasive cervical cancer

FIGO stage	GOSK recommendations
IA1-IA2	Fertility-sparing management or hysterectomy according to fertility desire, lymphovascular space invasion (LVSI) status, and surgical margin status.
IB1	Fertility-sparing surgery in selected patients or radical hysterectomy and pelvic lymph node dissection (PLND).
1B2	Radical hysterectomy with PLND; chemoradiation for patients unsuitable for surgery.
IIA1	Chemoradiation; radical hysterectomy may be considered following multidisciplinary team (MDT) review and confirmation of negative pelvic lymph nodes.
IB3 and IIA2	Concurrent platinum-based chemoradiation + brachytherapy is recommended
IIB, III and IVA	Concurrent platinum-based chemoradiation + brachytherapy is recommended
IVB/ metastatic disease	Systemic therapy ± immunotherapy ± palliative radiotherapy + supportive care

Table 3 summarizes the recommended evaluation and management of cervical cancer diagnosed incidentally following surgical treatment performed for another indication.

Table 3: Summary of GOSK recommendations for incidental cervical cancer following simple hysterectomy

Clinical scenario	GOSK recommendations
Incidental finding of invasive cervical cancer after simple hysterectomy	• Initial evaluation shall include complete staging and metastatic workup, including assessment of surgical margins, depth of stromal invasion, lymphovascular space invasion (LVSI) status, lymph node status, and imaging for residual or metastatic disease. • Management shall be guided by International Federation of Gynecology and Obstetrics (FIGO) stage, surgical margin status, LVSI, and depth of stromal invasion. • Patients with positive surgical margins and/or radiologic evidence of residual or metastatic disease should receive concurrent platinum-based chemoradiation. • Patients with low-risk disease and no evidence of residual disease may undergo surveillance (See Table 5).

Table 4 summarizes the GOSK recommendations for adjuvant treatment following primary surgical management, according to pathological risk features.

Table 4: Summary of GOSK recommendations for adjuvant treatment after radical surgery

Postoperative finding	GOSK recommendations
High-risk pathological findings after radical surgery	**Adjuvant concurrent chemoradiation is indicated*** in patients with any of the following: • Positive lymph nodes. • Positive surgical margins. • Positive parametrium.
Intermediate risk pathological findings after radical surgery (Sedlis criteria)	Patients with **negative lymph nodes, negative surgical margins, and negative parametria**, but meeting **Sedlis criteria****, should be offered **adjuvant pelvic radiotherapy or chemoradiation**. Patients who do not meet Sedlis criteria should undergo surveillance (see Table 5).

*The ideal time to initiate adjuvant chemoradiation is generally between 4 and 6 weeks' post-surgery, and ideally no later than 8 weeks.

**Sedlis Criteria (Intermediate-Risk Factors), if patient meets two criterions of any of the following combinations in the table below is a candidate for chemoradiation.

Combination	*LVSI*	*Depth of stromal invasion*	*Tumor size*
1.	*Positive*	*Deep one-third*	*≥4 cm*
2.	*Positive*	*Middle one-third*	*≥2 cm*
3.	*Positive*	*Superficial one-third*	*≥5 cm*
4.	*Negative*	*Deep or middle one-third*	*≥4 cm*

Table 5 summarizes the recommended surveillance approach following completion of treatment for cervical cancer.

Table 5: Summary of GOSK recommendations for post-treatment surveillance

Clinical domain	GOSK recommendations
Surveillance	• Follow-up visits should occur every 3–6 months during the first 2 years, every 6–12 months during years 3–5, and annually thereafter. Surveillance should include clinical evaluation with physical examination at each follow-up visit. Contrast-enhanced CT scan and/or abdominopelvic MRI should be performed within 3–6 months after completion of treatment to assess treatment response and detect residual disease, and thereafter as clinically indicated. PET-CT may be considered in selected patients with suspected recurrence, equivocal findings on conventional imaging, or when planning salvage therapy. There after imaging are done annually until 5 years post treatment or when recurrence is clinically indicated. • Patients should receive health education regarding symptoms of recurrence, healthy lifestyle behaviors, exercise, nutrition, smoking cessation, weight management, and sexual health, including the use of vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated.

Table 6 summarizes the recommended management approaches for patients presenting with recurrent cervical cancer according to the clinical scenario and extent of disease.

Table 6: Summary of GOSK recommendations for the management of recurrent cervical cancer

Clinical scenario	GOSK recommendations
Management of recurrent disease	• Histological confirmation of recurrent disease by biopsy should be obtained whenever feasible before initiation of treatment. • Patients with local recurrence and no prior history of pelvic radiotherapy should receive concurrent platinum-based chemoradiation. • Patients with central pelvic recurrence following prior chemoradiation should undergo multidisciplinary team (MDT) evaluation for pelvic exenteration. Patients unsuitable for surgery should receive systemic therapy and palliative supportive care. • Patients with non-central, unresectable, or metastatic recurrence should be managed with systemic therapy, palliative chemotherapy, and best supportive care aimed at symptom control and improving quality of life.

Table 7 summarizes the GOSK recommendations for the management of small-cell neuroendocrine carcinoma of the cervix.

Table 7: Summary of GOSK recommendations for small-cell neuroendocrine carcinoma of the cervix

Clinical scenario	GOSK recommendations
Management of small cell neuroendocrine cancer of the cervix	Patients with disease confined to the cervix and tumors ≤ 4 cm should undergo radical hysterectomy with pelvic lymph node dissection followed by adjuvant platinum–etoposide chemotherapy. Patients with tumors >4 cm (stage IB3) should receive concurrent chemoradiation with EBRT, brachytherapy, and platinum–etoposide chemotherapy. In selected patients demonstrating favorable treatment response, radical hysterectomy with pelvic lymph node dissection may be considered following multidisciplinary team (MDT) review. Patients with locally advanced disease should receive platinum-based chemotherapy in combination with external beam radiation therapy (EBRT) and brachytherapy. Patients with metastatic disease should receive systemic therapy, palliative chemotherapy, and optimal supportive care aimed at symptom control and improvement of quality of life.

Table 8 summarizes chemotherapy approaches that may be considered while patients are awaiting definitive chemoradiation, where applicable.

Table 8: Summary of GOSK recommendations fo neo-adjuvant chemotherapy while awaiting radiotherapy

Clinical scenario	GOSK recommendations
Neo-adjuvant chemotherapy in resource-limited settings	Neo-adjuvant chemotherapy may be offered to patients in resource-limited settings before commencement of chemoradiation: ▪ The first line regimen should be weekly carboplatin area under the curve (AUC) 2 in combination with paclitaxel 80 mg/m² for six weeks. ▪ Alternatively, paclitaxel 175 mg/m² in combination with carboplatin AUC 5–6 may be administered every three weeks for three cycles. The lower toxicity profile of this regimen makes it a viable alternative to weekly paclitaxel administration.

Table 9 summarizes the GOSK recommendations for salvage treatment in patients with persistent or recurrent cervical cancer who may be candidates for potentially curative local treatment.

Table 9: Summary of GOSK recommendations for salvage surgery for residual disease after chemoradiation

Clinical detail	GOSK recommendations
Surgery after radiotherapy	• Biopsy with histological confirmation of residual disease is mandatory. • Assessment for residual disease should be performed 4–12 weeks after completion of chemoradiation. • Salvage surgery should be reserved for patients with operable disease and without evidence of distant metastasis after multi-disciplinary team (MDT) discussion • Radical hysterectomy or extra fascial hysterectomy may be performed when the disease is confined to the cervix. • Patients with central disease involving the bladder, vagina, or rectum should be evaluated for pelvic exenteration.

Table 10 summarizes key palliative and supportive care recommendations for patients with cervical cancer across the disease trajectory.

Table 10: Summary of GOSK recommendations for palliative and supportive care

Clinical domain	GOSK recommendations
Palliative and supportive therapy	• Counseling patients, families, and caregivers on the disease, prognosis, and goals of care is an important component of palliative and supportive care. • Patients should also receive counseling on smoking cessation, weight management, and sexual health, including the use of vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated. • Symptom management should be directed at pain, nausea and vomiting, constipation, fatigue, and other treatment or disease-related symptoms. • Supportive interventions may include dialysis, nephrostomy tube placement, nutritional support, psychosocial support, and sexual health support where appropriate.

1.0 Introduction

1.1 Background

Cervical cancer arises predominantly from the transformation zone of the cervix and is most commonly classified as squamous cell carcinoma or adenocarcinoma, with adenosquemous carcinoma a smaller proportion of cases (1,2). Histological subtype is an important prognostic factor, with differences in clinical behavior and outcomes reported between the major histological types (3,4). Cervical cancer is most frequently diagnosed among women between 35 and 64 years of age and is uncommon in women younger than 20 years (5,6).

Persistent infection with high-risk human papillomavirus (HPV) is the principal risk factor for the development of cervical cancer (7). The progression from persistent HPV infection to invasive cervical cancer generally occurs through precancerous lesions that can be detected and treated before progression to invasive (8–10). Cervical cancer is therefore largely preventable through HPV vaccination, appropriate screening, early detection, and treatment of precancerous lesions (11). Despite its preventability, cervical cancer remains an important cause of morbidity and mortality, particularly in settings where access to prevention, early diagnosis, and definitive treatment is limited. Patient outcomes are strongly influenced by the stage of disease at diagnosis, timely access to appropriate treatment, and completion of treatment. These considerations are particularly important in Kenya, where disparities in access to screening, diagnostic services, specialist oncology care, and treatment may affect outcomes (12).

1.2 Epidemiology

Cervical cancer remains a major global public health concern, particularly in low- and middle-income countries (LMIC). Globally, cancer of the cervix accounts for approximately 6.8% of all cancers in women and nearly 45% of gynecological malignancies (13,14). More than 660,000 new cases and over 348,000 deaths are estimated to occur annually, according to the International Agency for Research on Cancer (IARC). The highest burden of cervical cancer incidence and mortality occurs in Eastern, Southern, and Central Africa (15–18).

1.3 Cervical cancer in Kenya

Cervical cancer is a major cause of cancer-related morbidity and mortality among women in Kenya. Approximately 5,250 new cases of cervical cancer are diagnosed annually, with nearly 3,286 deaths each year, making cervical cancer one of the leading causes of cancer-related morbidity and mortality among women (14). The high incidence of cervical cancer in Kenya is largely driven by inadequate screening coverage which is below 40%, compared with the 70% World Health Organization target (19,20). This results in missed opportunities for early detection and treatment of precancerous lesions. Mortality remains high because many patients present with advanced-stage disease and experience delayed access to diagnosis and treatment.

Disparities in outcomes are further compounded by socioeconomic inequalities, geographic barriers, shortages of trained healthcare personnel, inadequate diagnostic and treatment infrastructure, and limited access to oncology services, particularly in rural and resource-constrained settings (21). In addition, delayed presentation, financial constraints, interruptions in treatment, inadequate healthcare access, loss to follow-up, stigma, and reliance on traditional medicine may contribute to poor overall survival and progression-free survival (12). These challenges underscore the need for standardized clinical management approaches that are responsive to the Kenyan healthcare context and the resources available at different levels of care.

1.4 Rationale for the GOSK Protocols

Cervical cancer is one of the commonest cancers affecting women. There is a need to strengthen the sections on gynecological cancers on current Kenya National Cancer Protocols (2019) to include detailed management of cancer of the cervix, including multidisciplinary approach appropriate for a resource-limited setting and consideration of new treatment and technologies. Since gynecological cancer management is multidisciplinary approach, comprehensive clinical management should incorporate updated guidelines that reflect recent advances in research and treatment options. By doing so, healthcare providers can provide patients with updated, effective, and individualized care.

In Kenya, the absence of standardized national protocols has contributed to variability in clinical practice and disparities in cervical cancer care. Recognizing this gap, the Gynecologic Oncology Society of Kenya (GOSK) initiated the development of the first national standardized clinical management protocol for gynecologic cancers, including cancer of the cervix. The recommendations have been adapted from high-quality international guidelines (22–24) and contextualized to the Kenyan healthcare system with the aim of standardizing care, improving diagnostic accuracy, optimizing treatment outcomes, promoting equitable access to services, and ensuring efficient utilization of limited healthcare resources.

The development of a national protocol will directly address these gaps by standardizing clinical practice, enabling earlier diagnosis, and tailoring therapeutic approaches to Kenya's resource context. Incorporation of established risk factors, prognostic markers, and feasible therapeutic options will support equitable care delivery, improve patient outcomes, and advance the national cancer control agenda. Given these considerations, the development of cervical cancer management protocol is both justified to support effective, equitable, and context-appropriate care for patients in Kenya.

2.0 Risk factors, Clinical presentation, Histology and staging

2.1 Risk factors

Persistent infection with high-risk human papillomavirus (HPV) types is the principal cause of cervical cancer. Several factors may increase the likelihood of persistent HPV infection or progression to cervical dysplasia and

invasive cervical cancer. These include HIV infection and other sexually transmitted infections, absence of routine cervical cancer screening, lack of HPV vaccination, multiple sexual partners, early age at first sexual intercourse, high parity, smoking, prolonged use of estrogen-containing oral contraceptives, and a history of cervical dysplasia. The risk factors identified in the current protocol are summarized in Table 11.

Table 11: Risk factors for cervical cancer

Risk factor	Details
HPV infection	Persistent infection with high-risk Human Papilloma Virus (HPV) types is the principal cause of cervical cancer.
Sexually transmitted infections	HIV infection impairs immune clearance of high-risk HPV, leading to persistent infection, multiple HPV co-infections, and accelerated progression to cervical dysplasia and invasive cervical cancer. Other sexually transmitted infections, including *Chlamydia trachomatis*, may cause architectural damage to the cervix exposing basal layer to HPV, causing chronic inflammatory state which impairs immunity to clear HPV infection, and causing host cellular and DNA damage .
Absence of routine cervical cancer screening	Lack of regular cervical cancer screening increases the risk of undetected cervical dysplasia progressing to invasive cervical cancer.
Lack of HPV vaccination	Individuals who have not received HPV vaccination are at increased risk of cervical cancer. HPV vaccination provides the greatest protection when administered prior to exposure to HPV.
Multiple sexual partners	Increasing number of lifetime sexual partners is associated with increased risk of HPV infection and cervical cancer. Risk may be further increased in individuals whose sexual partners have a history of HPV-related disease or whose previous partners died from cervical cancer.
Age of first sexual intercourse	Early onset of sexual activity, particularly before 18 years of age, is associated with increased risk of HPV infection and cervical cancer. This may be related to increased cervical ectropion and active squamous metaplasia during adolescence, which makes the transformation zone more susceptible to persistent HPV infection.
Parity	High parity is associated with increased risk of HPV infection and cervical cancer. Increased estrogen exposure during pregnancy promotes cervical ectropion and active squamous metaplasia, which may increase susceptibility of the transformation zone to persistent HPV infection.
Smoking	Smoking impairs local immune response, promotes persistence of HPV infection, and increases the risk of cervical cancer.
Prolonged use of estrogen-containing oral contraception	Long-term use (>5 years) of estrogen-containing oral contraceptives has been associated with increased risk of cervical cancer. Prolonged estrogen exposure may promote cervical ectropion and active squamous metaplasia, increasing susceptibility of the transformation zone to persistent HPV infection.
Cervical dysplasia	Women treated for or diagnosed with **cervical intraepithelial neoplasia** have a two to three times increased risk of acquiring cervical cancer in the future.

2.2 Clinical presentation

Cervical cancer may be asymptomatic, particularly in its early stages, or may present with a range of symptoms depending on the extent and location of disease. Common clinical features include abnormal vaginal bleeding, abnormal vaginal discharge, pelvic or lower back pain, and pain during sexual intercourse. Advanced disease may be associated with urinary or gastrointestinal symptoms, systemic symptoms, fistula formation, and lower-limb swelling. The clinical features described in the current protocol are summarized in Table 12.

Table 12: Clinical features of cancer of the cervix

Symptom	Explanation
Abnormal vaginal bleeding	Cervical tumors are friable and highly vascular, predisposing patients to contact bleeding, intermenstrual bleeding, postcoital bleeding, or postmenopausal bleeding.
Abnormal vaginal discharge	Tumor necrosis, secondary infection, and local tissue destruction may result in foul-smelling, watery, bloody, or purulent vaginal discharge.
Pain during sexual intercourse	Local tumor infiltration and cervical inflammation may result in pain during sexual intercourse.
Lower back and pelvic pain	Advanced disease with parametrial involvement, pelvic wall extension, nerve involvement, or lymph node metastasis may result in lower back or pelvic pain.
Painful urination and increased urinary frequency	Tumor invasion or compression of the bladder, ureters, or surrounding pelvic structures may result in urinary symptoms, including dysuria, frequency, obstructive uropathy, or hydronephrosis.
Weight loss	Cancer cachexia, increased metabolic demand, reduced oral intake, and systemic inflammatory response may contribute to weight loss.

Symptom	Explanation
Fatigue	Cancer-related fatigue may result from chronic disease burden, anemia, malnutrition, metabolic disturbances, or advanced malignancy.
Confusion, nausea, vomiting, and decreased urine output	Advanced cervical cancer may cause ureteric obstruction leading to hydronephrosis, renal impairment, and uremia.
Passing urine and/or feces vaginally	Advanced disease may invade the bladder or rectum, resulting in vesicovaginal or rectovaginal fistulae.
Swelling of the legs	Pelvic lymph node involvement or lymphatic obstruction may impair lymphatic drainage and result in lower limb edema.

2.3 Histological classification

Cervical cancer comprises a range of histological types, with squamous cell carcinoma and adenocarcinoma representing the major epithelial subtypes (25,26). Other histological types include adenosquamous carcinoma, adenoid cystic carcinoma, adenoid basal carcinoma, neuroendocrine tumors, undifferentiated carcinoma, mesenchymal tumors, mixed epithelial and mesenchymal tumors, melanocytic tumors, lymphoid and haematopoietic tumors, and secondary tumors. The histological classification of tumors of the uterine cervix used in the current protocol is summarized in Box 1.

Box 1: WHO histological classification of tumors of the uterine cervix
1. **Epithelial tumors**
A. **Squamous cell carcinoma**
• Squamous cell carcinoma, not otherwise specified ○ Keratinising ○ Non-keratinising ○ Basaloid ○ Verrucous ○ Warty ○ Papillary • Lymphoepithelioma-like • Squamotransitional
B. **Glandular tumors**
• Adenocarcinoma ○ Mucinous adenocarcinoma ▪ Endocervical ▪ Intestinal ▪ Signet-ring cell ▪ Minimal deviation ▪ Villoglandular • Endometrioid adenocarcinoma • Clear cell adenocarcinoma • Serous adenocarcinoma • Mesonephric adenocarcinoma
C. **Other epithelial tumors**
• Adenosquamous carcinoma ○ Glassy cell carcinoma variant • Adenoid cystic carcinoma • Adenoid basal carcinoma • Neuroendocrine tumors ○ Carcinoid ○ Atypical carcinoid ○ Small cell carcinoma ○ Large cell neuroendocrine carcinoma • Undifferentiated carcinoma
2. **Mesenchymal tumors and tumor-like conditions**
3. **Mixed epithelial and mesenchymal tumors**
4. **Melanocytic tumors**
5. **Miscellaneous tumors**
6. **Lymphoid and haematopoetic tumors**
7. **Secondary tumors**

Adapted from cervical cancer: ESMO clinical practice guideline for diagnosis, treatment and follow up, 2017 (9).

Cervical cancer is staged according to the International Federation of Gynecology and Obstetrics (FIGO) 2018 staging system (27,28). Staging is based on the extent of the primary tumor, involvement of the vagina and parametria, extension to the pelvic wall, hydronephrosis or a non-functioning kidney, lymph node involvement, and spread to adjacent or distant organs. The FIGO 2018 staging classification used in the current protocol is summarized in Box 2.

Box 2: International Federation of Gynecology and Obstetrics (FIGO) surgical staging of the cervix uteri (2018)

Box 2: International Federation of Gynecology and Obstetrics (FIGO) surgical staging of the cervix uteri (2018)
Stage I:
Carcinoma is strictly confined to the cervix (extension to the corpus should be disregarded)
• **IA** Invasive carcinoma that can be diagnosed only by microscopy with a maximum depth of invasion ≤5 mm
○ **IA1** Measured stromal invasion ≤3 mm in depth ○ **IA2** Measured stromal invasion >3 mm and ≤5 mm in depth
• **IB** Invasive carcinoma with measured deepest invasion >5 mm (greater than stage IA); lesion limited to the cervix uteri with size measured by maximum tumor diameter
○ **IB1** Invasive carcinoma >5 mm depth of stromal invasion and ≤2 cm in greatest dimension ○ **IB2** Invasive carcinoma >2 cm and ≤4 cm in greatest dimension ○ **IB3** Invasive carcinoma >4 cm in greatest dimension
Stage II:
The cervical carcinoma invades beyond the uterus, but has not extended onto the lower third of the vagina or to the pelvic wall
• **IIA** Involvement limited to the upper two-thirds of the vagina without parametrial invasion
○ **IIA1** Invasive carcinoma ≤4 cm in greatest dimension ○ **IIA2** Invasive carcinoma >4 cm in greatest dimension
IIB with parametrial invasion but not up to the pelvic wall
Stage III:
The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or non-functioning kidney and/or involves pelvic and/or para aortic lymph nodes
• **IIIA** Carcinoma involves lower third of the vagina, with no extension to the pelvic wall
• **IIIB** Extension to the pelvic wall and/or hydronephrosis or non-functioning kidney (unless known to be due to another cause)
• **IIIC** Involvement of pelvic and/or Para aortic lymph nodes (including micro metastases) irrespective of tumor size and extent (with r and p notations).
○ **IIIC1** Pelvic lymph node metastasis only ○ **IIIC2** Para-aortic lymph node metastasis
Stage IV:
The carcinoma has extended beyond the true pelvis or has involved (biopsy proven) the mucosa of the bladder or rectum. A bullous edema, as such, does not permit a case to be allotted to stage IV
• **IVA** Spread of the growth to adjacent organs • **IVB** Spread to distant organs

Adapted from Kenya National Cancer Treatment Protocols, 2019, and International Federation of Gynecology and Obstetrics (FIGO) surgical staging of the cervix uteri (2018)

3.0 Objectives

3.1 Overall objective

To establish standardized, evidence-based approach to management of cervical cancer in Kenya.

3.2 Specific objectives

To provide recommendations and guidance on

1. Diagnostic evaluation of cervical cancer.
2. Management according to the stage of the disease.
3. Management of incidental cervical cancer following simple or subtotal hysterectomy.
4. Adjuvant treatment following radical surgery.
5. Post-treatment surveillance.
6. Management of recurrent disease.
7. Special considerations in the management of small-cell neuroendocrine carcinoma of the cervix.
8. Induction chemotherapy while awaiting chemoradiation.
9. Salvage surgery for residual disease after chemoradiation.
10. Supportive and palliative care.

4.0 Clinician responsibility

This protocol represents the evidence-based consensus of the multidisciplinary development group under the GOSK for the management of patients with cervical cancer. It is intended to provide guidance to clinicians; however, application of these recommendations should always be informed by independent clinical judgment, consideration of each patient's individual circumstances.

5.0 Methods

5.1 Guideline adaptation approach

This protocol was developed through an adaptation approach, drawing on high-quality existing international guidelines (Table 14) (22–24) and tailoring their recommendations to Kenya's health system and resource context. The approach involved identification and appraisal of relevant clinical practice guidelines, selection of suitable source guidelines, and adaptation and contextualization of their recommendations to the Kenyan setting.

5.2 Development panel

A multidisciplinary protocol development panel was convened to oversee the adaptation and contextualization of the cervical cancer management recommendations for the Kenyan setting. The panel comprised gynecologic oncologists, pathologists, radiologists, gynecologic oncology nurses, oncology pharmacists, radiation oncologists, public health specialists, and patient representatives. The panel included specialists from the University of Nairobi and Kenyatta National Hospital with training and experience in principles of evidence-based guideline adoption.

Panel members were trained in the use of standardized appraisal instruments, systematic approaches to the evaluation of published guidelines and protocols, and methods for contextualizing recommendations to the local setting. This process was intended to support alignment with internationally recognized standards while addressing the specific challenges and resource considerations of Kenya's healthcare system.

5.3 Search strategy

A comprehensive search of PubMed and Google Scholar was undertaken to identify relevant evidence-based recommendations, clinical practice guidelines, systematic reviews, and best-practice statements on the management of cervical cancer. The search focused on literature addressing the diagnosis, staging, treatment, surveillance, and management of recurrent cervical cancer. The main terms included "cervical cancer," "cancer of the cervix," "clinical guideline," "gynecologic oncology," "protocols," and "guidelines". These terms were used in combination as appropriate to identify relevant clinical practice guidelines and supporting evidence.

The search identified four primary reference guidelines (9,22–24). which were subsequently assessed for methodological quality and suitability for adaptation to the Kenyan healthcare context. The retrieved guidelines are summarized in Table 13.

Table 13: Summary of retrieved guidelines

	Title	Type	Publisher	Year of last update
1.	National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Cervical Cancer	Clinical guideline	NCCN	2025
2.	American Society of Clinical Oncology (ASCO) Management and care of women with invasive cervical cancer: American Society of Clinical Oncology Resource Stratified Clinical Practice Guideline	Clinical guideline	ASCO	2016
3.	Cervical cancer: European Society of Medical Oncology (ESMO) Clinical Practice Guidelines for diagnosis, treatment, and follow-up	Clinical guideline	ESMO	2017
4.	Practice guidelines for management of cervical cancer in Korea: A Korean Society of Gynecologic Oncology (KSGO) Consensus Statement	Clinical guideline	KSGO	2017

5.4 Source guideline identification

Four primary clinical guidelines were identified through the literature search and considered as potential source guidelines for adaptation to the Kenyan context. These comprised:

1. National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Cervical Cancer, 2025.
2. American Society of Clinical Oncology (ASCO) Resource-Stratified Clinical Practice Guideline for the Management and Care of Women With Invasive Cervical Cancer, 2016.
3. European Society for Medical Oncology (ESMO) Clinical Practice Guidelines for Cervical Cancer: Diagnosis, Treatment and Follow-up, 2017.
4. Korean Society of Gynecologic Oncology (KSGO) Practice Guidelines for the Management of Cervical Cancer: Consensus Statement, 2017.

These guidelines were selected for detailed methodological appraisal using the Appraisal of Guidelines for Research and Evaluation II (AGREE II) instrument. The appraisal informed the subsequent selection of source guidelines for analysis and adaptation.

5.5 Eligibility and selection

The retrieved guidelines were considered for inclusion as potential source guidelines for adaptation based on their relevance to the clinical management of cervical cancer and their suitability for informing recommendations in the Kenyan healthcare context. All four identified guidelines were independently appraised using the AGREE II instrument.

Guidelines were considered suitable for adaptation based primarily on the Rigor of Development domain. Guidelines with a Domain 3 score below 50% were excluded, while those with a score above 50% were considered eligible for inclusion in the adaptation process. The results of the AGREE II appraisal and the resulting inclusion decisions are presented in Table 14.

5.6 AGREE II appraisal

All retrieved guidelines were independently assessed by two trained panelists using AGREE II instrument. AGREE II assesses guideline quality across six domains:

1. Scope and purpose
2. Stakeholder involvement
3. Rigor of development
4. Clarity of presentation
5. Applicability
6. Editorial independence

Each AGREE II item, together with the two global assessment items, was rated on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The overall assessment considered the quality of each guideline and its suitability for use in the adaptation process.

For each domain, the scores for the individual items were summed and standardized as a percentage of the maximum possible score using the following formula:

Domain score (%) = (Obtained score − Minimum possible score) / (Maximum possible score − Minimum possible score) × 100

Where no agreement was reached between the two reviewers, one of the designated facilitators was designated as a tiebreaker to reach the final agreement.

5.7 Guideline selection

The AGREE II appraisal results were used to identify the strengths and limitations of the retrieved guidelines, compare their methodological quality, and select guidelines for adaptation. Guidelines with a Domain 3 (Rigor of Development) scores below 50% were excluded, while guidelines with a score above 50% were selected for adaptation.

Based on this criterion, three guidelines were selected for inclusion in the analysis of recommendations and their adaptation: the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Cervical Cancer, the American Society of Clinical Oncology (ASCO) Resource-Stratified Clinical Practice Guideline for the Management and Care of Women with Invasive Cervical Cancer, and the Korean Society of Gynecologic Oncology (KSGO) Practice Guidelines for the Management of Cervical Cancer: Consensus Statement. The European Society for Medical Oncology (ESMO) Clinical Practice Guidelines for Cervical Cancer was excluded because its Domain 3 score was 33%, below the predefined 50% threshold (Table 14). The selected guidelines therefore comprised NCCN (2025), ASCO (2016), and KSGO (2017) and formed the basis for the subsequent review and adaptation of recommendations.

Table 14: Summary of AGREE II domain score (29)

	Title	Domain 1 %	Domain 2 %	Domain 3 %	Domain 4 %	Domain 5 %	Domain 6 %	Overall decision
1	NCCN Clinical Practice Guidelines in Oncology: Cervical Cancer	97	82	59	92	88	79	Included
2	Management and care of women with Invasive Cervical cancer: American Society of Clinical Oncology (ASCO) Resource Stratified Clinical Practice Guideline	97	78	85	94	78	88	Included
3	Practice guidelines for management of cervical cancer in Korea: A Korean Society of Gynecologic Oncology (KSGO) Consensus Statement	81	78	77	92	74	79	Included
4	Cervical cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up	84	72	33	22	48	79	Excluded

5.8 Adaptation and contextualization

The recommendations from the three selected guidelines were reviewed and compared to identify areas of agreement, differences in recommendations, and components relevant to the clinical management of cervical cancer. The recommendations were then adapted and contextualized to the Kenyan healthcare setting, taking into consideration the available health system resources, healthcare infrastructure, and the challenges relevant to the delivery of cervical cancer care in Kenya.

The recommendations from the three selected guidelines were reviewed and adapted to the Kenyan healthcare setting. The adaptation and contextualization process considered Kenya's health system and resource context, including the challenges and resource considerations relevant to the delivery of cervical cancer care. The resulting recommendations were incorporated into the GOSK clinical management protocol.

5.9 Development of GOSK recommendations

The recommendations from the three selected guidelines were reviewed and synthesized across the major components of cervical cancer management. The evidence review considered recommendations from the NCCN, ASCO, and KSGO guidelines in relation to diagnosis, staging, treatment, surveillance, recurrent disease, and other areas addressed by the protocol.

The recommendations were subsequently adapted and contextualized by the multidisciplinary GOSK development group to address the Kenyan healthcare and resource context. The resulting GOSK recommendations were organized according to the clinical management pathway and are presented in the evidence review tables and the subsequent summary of recommendations.

6.0 Review of evidence

This section summarizes the evidence reviewed from the three selected clinical practice guidelines: the National Comprehensive Cancer Network (NCCN) Clinical Practice Guidelines in Oncology: Cervical Cancer (2025), the American Society of Clinical Oncology (ASCO) Resource-Stratified Clinical Practice Guideline for the Management and Care of Women With Invasive Cervical Cancer (2016), and the Korean Society of Gynecologic Oncology (KSGO) Practice Guidelines for the Management of Cervical Cancer (2017). The recommendations from these guidelines were compared across the major components of cervical cancer management and considered in the development of the GOSK recommendations.

Table 15: Comparative summary of evidence from source guidelines for diagnostic considerations for cancer of the cervix (22–24)

Diagnostic workup	Guideline(s)	Key components	Recommendations
Clinical evaluation	NCCN, KSGO, ASCO	History	Clinical evaluation shall commence with a structured history, with particular attention to the following features: • Irregular uterine bleeding • Foul-smelling vaginal discharge • Lower back and pelvic pain • Unexplained weight loss • Dyspareunia • Nausea, vomiting, oliguria, altered mental status related to uremia from obstructive uropathy. • In advanced-stage disease, vesicovaginal or rectovaginal fistulae
Clinical evaluation	NCCN, KSGO, ASCO	Physical examination	Perform a comprehensive general and systemic examination with potential metastatic sites, including the liver, lungs, and central nervous system. **Examination without anesthesia,** a comprehensive pelvic examination, which includes speculum, bimanual, and rectovaginal examinations, must be conducted to evaluate: • The presence of a suspicious cervical mass and • Ascertain the local extent and probable stage of the disease. **Examination under anesthesia (EUA)**: EUA may be performed when adequate pelvic assessment cannot be achieved during office examination or when detailed evaluation of disease extent is required. EUA may be used to: • Assess local tumor extent and improve staging accuracy. • Evaluate parametrial involvement, vaginal extension, pelvic sidewall involvement, and adjacent organ invasion. • Facilitate biopsy in patients with suspected cervical cancer when office biopsy is inadequate or poorly tolerated. • Guide treatment planning, particularly for patients with bulky, locally advanced, or advanced-stage disease.
Biopsy and histology	NCCN, KSGO, ASCO	Biopsy	**Histological evidence** is required for the conclusive diagnosis of cervical cancer: • **Colposcopy-directed biopsy** can be performed on patients who do not have visible cervical lesions but present with either of the following: ▪ Patients with high-grade screening results which include pap tests showing high grade squamous intraepithelial lesion (HSIL), atypical squamous cells that cannot exclude HSIL (ASC-H), or atypical glandular cells (AGC). ▪ Patients with high-risk Human Papilloma Virus (HPV) strains: positive testing for HPV 16 or HPV 18, which are mostly associated with cervical cancer. ▪ Persistent HPV infection: Positive high-risk HPV test results for two or more consecutive years, even if cytology (the pap test) remains normal. ▪ High-risk population: Patients who are immunocompromised, such as those living with HIV, who show low-grade or worse cytological abnormalities. Patients with visible cervical lesions suspicious for early-stage disease (stages I–II) should be considered for biopsy with EUA, especially where adequate office biopsy cannot be obtained or detailed assessment of local disease extent is required. Patients with visible lesions and advanced-stage disease (stages III–IV) may undergo biopsy without anesthesia. However, biopsy during EUA is acceptable when clinically indicated or when the patient is already undergoing EUA for assessment. To enhance diagnostic yield, necrotic tissue should be avoided during punch biopsy.
Laboratory tests	NCCN, KSGO, ASCO	Supportive Investigations	Laboratory findings in cervical cancer are not diagnostic. Supportive laboratory studies should be performed to examine probable metastatic illness, to assess patient fitness, and to prepare for decisive therapy. Recommended investigations include:

Diagnostic workup	Guideline(s)	Key components	Recommendations
			• A full hemogram, • Renal function tests • Liver function tests • HIV testing, and • Urinalysis.
Imaging	NCCN, KSGO, ASCO	Metastatic workup	All patients with confirmed cervical cancer should undergo complete radiologic staging as follows: ▪ Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or abdominopelvic MRI should be performed to assess local disease extent and metastatic disease. MRI is preferred for local pelvic staging where available; however, CT remains an acceptable alternative in resource-limited settings where MRI is not available. PET-CT may be used as the primary staging imaging modality where available or when there are equivocal findings on conventional imaging. In the absence of CT chest imaging, a chest X-ray may be performed in resource-limited settings to evaluate for pulmonary metastasis. In the absence of CT/MRI of the abdominen and pelvis, abdominopelvic ultrasound can be performed as the initial imaging modality to assess the cervical mass and evaluate disease extent. Then the patient will be referred to resourceful setting for complete radiologic staging as above. Cystoscopy and/or colonoscopy may be performed when there is suspicion of bladder or rectal involvement.

Table 16: Comparative summary of evidence from source guidelines for management of cervical cancer stage 1A1 (22–24)

Stage	Lymphovascular Space Invasion (LVSI)	Fertility-sparing / non–fertility-sparing/margin	Guidelines		
			NCCN	ASCO	KSGO
IA1	No LVSI	Fertility-sparing primary treatment	**Cold knife conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, cold knife conization is recommended over Loop Electrosurgical Excision Procedure (LEEP).	**Cold knife conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, cold knife conization is recommended over LEEP.	**Cold knife conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, cold knife conization is recommended over LEEP.
IA1	No LVSI	Non–fertility-sparing primary treatment	No recommendation	**Simple or extrafascial hysterectomy:** Simple or extrafascial hysterectomy may be performed in patients who do not wish to preserve fertility. OR **Concurrent chemoradiation:** Concurrent chemoradiation consisting of External Beam Radiation Therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients	**Simple or extrafascial hysterectomy:** Simple or extrafascial hysterectomy may be performed in patients who do not wish to preserve fertility. OR **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio

Stage	Lymphovascular Space Invasion (LVSI)	Fertility-sparing / non–fertility-sparing/margin	Guidelines		
			NCCN	**ASCO**	**KSGO**
				who are unsuitable for surgery or decline surgery.	sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
1AI	No LVSI	Positive cone/LEEP margin	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, repeat cold knife conization or trachelectomy may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, repeat cold knife conization or trachelectomy may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended.	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, repeat cold knife conization or trachelectomy may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended.
IA1	No LVSI	Negative cone/LEEP margin	**Surveillance:** Patients with negative cone or LEEP margins do not require additional adjuvant therapy and should undergo surveillance. Or **Simple hysterectomy:** Simple hysterectomy may be performed in patients who have completed childbearing and desire definitive surgical management.	**Surveillance:** Patients with negative cone or LEEP margins do not require additional adjuvant therapy and should undergo surveillance.	**Surveillance:** Patients with negative cone or LEEP margins do not require additional adjuvant therapy and should undergo surveillance.
IA1	Positive LVSI	Fertility-sparing primary treatment	**Conization or trachelectomy**: Fertility-sparing management should be discussed with patients who wish to preserve fertility. If	**Conization or trachelectomy**: Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is	**Conization or trachelectomy**: Fertility-sparing management should be discussed with patients who wish

Stage	Lymphovascular Space Invasion (LVSI)	Fertility-sparing / non–fertility-sparing/margin	Guidelines		
			NCCN	**ASCO**	**KSGO**
			the diagnosis is established by punch biopsy, cold knife conization or trachelectomy with Pelvic Lymph Nodes Dissection (PLND) may be performed.	established by punch biopsy, cold knife conization or trachelectomy with PLND may be performed.	to preserve fertility. If the diagnosis is established by punch biopsy, cold knife conization or trachelectomy with PLND may be performed.
IA1	Positive LVSI	Non–fertility-sparing primary treatment	No recommendation	**Radical hysterectomy**: Radical hysterectomy with PLND is recommended for patients who do not wish to preserve fertility. OR **Chemoradiation**: Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	No recommendation
IA1	Positive LVSI	Positive cone/LEEP margin	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy or conization with PLND may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy with PLND may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy with PLND may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA1	Positive LVSI	Negative cone/LEEP margin	**Fertility-sparing:** Pelvic lymph node dissection may be	**Fertility-sparing:** Pelvic lymph node dissection may be performed in	**Fertility-sparing:** Pelvic lymph node dissection may be

Stage	Lymphovascular Space Invasion (LVSI)	Fertility-sparing / non–fertility-sparing/margin	Guidelines		
			NCCN	ASCO	KSGO
			performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.	patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.	performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.

Table 17: Comparative summary of evidence from source guidelines for management of cervical cancer for stage IA2 (22–24)

Stage	Fertility-sparing/non-fertility sparing, regardless of LVSI/Margin	Guideline		
		NCCN	ASCO	KSGO
IA2	Fertility-sparing primary treatment	**Radical trachelectomy or conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, radical trachelectomy or conization with Pelvic Lymph Nodes Dissection (PLND) is recommended.	**Radical trachelectomy:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, radical trachelectomy with PLND is recommended.	**Radical trachelectomy:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, radical trachelectomy with PLND is recommended.
IA2	Non–fertility-sparing primary treatment	**Extrafascial hysterectomy:** Extrafascial hysterectomy with PLND may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of External Beam Radiation Therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	**Radical hysterectomy:** Radical hysterectomy with PLND may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	**Radical hysterectomy:** Radical hysterectomy with PLND may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA2	Positive cone/Loop Electrosurgical Excision Procedure (LEEP) margin	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy or repeat conization with	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy or repeat conization	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, trachelectomy with PLND may be

Stage	Fertility-sparing/non-fertility sparing, regardless of LVSI/Margin	Guideline		
		NCCN	ASCO	KSGO
		PLND may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	with PLND may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA2	Negative cone/LEEP margin	**Fertility-sparing:** Pelvic lymph node dissection may be performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.	**Fertility-sparing:** Pelvic lymph node dissection may be performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.	**Fertility-sparing:** Pelvic lymph node dissection may be performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance. **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.

Table 18: Comparative summary of evidence from source guidelines for management of cervical cancer stage IB1 (22–24)

Stage	Fertility-sparing/non fertility sparing, regardless of LVSI/Margin	Guidelines		
		NCCN	ASCO	KSGO
1B1	Fertility-sparing primary treatment	**Radical trachelectomy or conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. Radical trachelectomy or conization with pelvic lymph nodes dissection (PLND) is recommended in patients with stage IB1.	**Radical trachelectomy:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. Radical trachelectomy with PLND is recommended in patients with stage IB1.	**Radical trachelectomy:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. Radical trachelectomy with PLND is recommended in patients with stage IB1.
	Non–fertility-sparing	**Radical hysterectomy:** Radical hysterectomy with PLND may be	**Radical hysterectomy:** Radical hysterectomy with PLND may be	**Radical hysterectomy:** Radical hysterectomy with PLND may be performed in patients who do not wish to preserve fertility.

Stage	Fertility-sparing/non fertility sparing, regardless of LVSI/Margin	Guidelines		
		NCCN	**ASCO**	**KSGO**
	primary treatment	performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery	performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery	Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery

Table 19: Comparative summary of evidence from source guidelines for primary treatment of cervical cancer stage IB2, IB3-IIB and Select IIA1 (22–24)

Stage	Guidelines		
	NCCN	**KSGO**	**ASCO**
1B2	Stage IB2 cervical cancer is best managed with radical hysterectomy and pelvic lymph node dissection. Depending on clinical assessment and imaging findings, para-aortic lymph node assessment or sentinel lymph node mapping may be considered. Or Concurrent chemoradiation consisting of pelvic external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	Stage IB2 cervical cancer is best managed with radical hysterectomy and pelvic lymph node dissection. Depending on clinical assessment and imaging findings, para-aortic lymph node assessment or sentinel lymph node mapping may be considered. Or Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	Stage IB2 cervical cancer is best managed with radical hysterectomy and pelvic lymph node dissection. Depending on clinical assessment and imaging findings, para-aortic lymph node assessment or sentinel lymph node mapping may be considered. Or Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
1B3-IIB	Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients with stage IB3–IIB cervical cancer.	Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients with stage IB3–IIB cervical cancer.	Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients with stage IB3–IIB cervical cancer.
Selected stage	Radical hysterectomy with ovarian preservation	Radical hysterectomy with ovarian preservation may be	No recommendation

Stage	Guidelines		
IIA1 suitable for radical surgery	may be considered in selected patients with stage IIA1 cervical cancer after multi-disciplinary discussion team (MDT) discussion and confirmation of negative pelvic lymph nodes by imaging and lymph node biopsy or sentinel lymph node mapping.	considered in selected patients with stage IIA1 cervical cancer after MDT discussion and confirmation of negative pelvic lymph nodes by imaging and lymph node biopsy or sentinel lymph node mapping.	

Table 20: Comparative summary of evidence from source guidelines for primary treatment of cervical cancer stage III and IVA (22–24)

		Guidelines		
Stage	**Nodes**	**NCCN**	**KSGO**	**ASCO**
III and IVA	Pelvic nodes Negative/positive	Concurrent platinum-based chemoradiation consisting of pelvic External Beam Radiation Therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients without para-aortic lymph nodes metastasis.	Concurrent platinum-based chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients without para-aortic lymph nodes metastasis.	Concurrent platinum-based chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients without para-aortic lymph nodes metastasis.
	Para-aortic lymph node positive	Patients with positive para-aortic lymph nodes and no distant metastasis should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.	Patients with positive para-aortic lymph nodes and no distant metastasis should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.	Patients with positive para-aortic lymph nodes and no distant metastasis should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.

Table 21: Comparative summary of evidence from source guidelines for primary treatment of cervical cancer stage IVB or recurrence with distant metastasis (22–24)

Stage	**Local treatment**	**Guidelines**		
IVB Or recurrence disease with distant metastasis.	Amenable or not amenable to local therapy.	**NCCN**	**KSGO**	**ASCO**
		Management should include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel*, with or without bevacizumab. Tumors that are Programmed Death Ligand-1 (PD-L1) positive or have a high tumor mutational burden may be considered for pembrolizumab. External Beam Radiation Therapy (EBRT) may be provided on an individualized basis when clinically necessary.	Management should include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel*, with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for pembrolizumab. EBRT may be provided on an individualized basis when clinically necessary. Palliative and supportive care should focus on symptom control and quality of life using a	Management should include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel*, with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for pembrolizumab. EBRT may be provided on an individualized basis when clinically necessary. Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.

Stage	Local treatment	Guidelines		
		Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	multidisciplinary approach.	
Systemic therapy: (mostly for liver/lung conditions, visceral diseases, etc.) ***1st line:*** *IV Carboplatin AUC 4-7or IV Cisplatin 50-75mg/m^2 and IV paclitaxel 135-175mg/m^2* *+/- Bevacizumab 10-15mg/kg once in every three weeks for six cycles.* *For PDL-1 positive tumors (Combined positive score ≥1) add IV Pembrolizumab 200mg once every 3 weeks/IV Atezolizumab 1200mg once every three weeks.* ***2nd line/subsequent therapy:*** *Preferred- Pembrolizumab for patient with PDL-1 positive or tumor mutational burden high (≥10mutations/megabase) if it was not given initially.* *Other recommendations* *IV Bevacizumab 10-15mg/kg every 3 weeks or* *IV Paclitaxel 135-175mg/m^2 every 3 weeks or* *IV Albumin bound paclitaxel 125mg/m^2 D1, D8, D15 every 4 weeks or* *IV Docetaxel 75mg/m^2 every 3 weeks or* *IV Gemcitabine 800mg/m^2 once for 3 weeks.* *IV topotecan 0.75mg/m2/day D1 D2 D3 every 3 weeks for 6 cycles.*				

Table 22: Comparative summary of evidence from source guidelines for incidental finding of invasive cervical cancer after simple (extra fascial) hysterectomy (22–24)

			Guidelines		
Stage	**Workup**	**margins**	**NCCN**	**KSGO**	**ASCO**
Stage IA 1 without LVSI	Negative metastatic workup	Negative	**Surveillance:** No additional adjuvant therapy is required for patients with stage IA1 disease without lymphovascular space invasion (LVSI) and with negative surgical margins.	No recommendation	No recommendation
Stage IA1-1A2 with LVSI	Negative metastatic workup	Negative	**Pelvic lymph node dissection:** Patients with stage IA1 with LVSI and IA2 disease with negative margins and no evidence of distant metastasis on imaging should undergo pelvic lymph node dissection. Patients with negative lymph nodes should undergo surveillance. 0r **Concurrent chemoradiation:** Concurrent chemoradiation consisting of pelvic external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for pelvic lymph node dissection or decline surgery.	No recommendation	No recommendation
IA2-IB1 All conservative surgery criteria met: -No LVSI -Depth of invasion < 10mm -not high risk histology	Negative metastatic workup	negative	**Pelvic lymphadenectomy**: Patient with stage IA2-IB1 with negative distant disease on imaging, pelvic lymphadenectomy should be performed, if the nodes are negative, the patient should undergo surveillance. 0r **Concurrent chemoradiation:** Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-	No recommendation	No recommendation

			Guidelines		
Tumor size ≤ 2cm			based radio sensitizing chemotherapy may be administered in patients who are unsuitable for pelvic lymph node dissection or decline surgery.		
Stage IB1-IB2 Not meeting conservative surgery criteria LVS+ or Tumor size > 2cm and Sedlis criteria not met	Negative metastatic workup	Negative	**Concurrent chemoradiation**: adjuvant treatment for patient with stage IB1-IB2 not meeting conservative surgery criteria is pelvic EBRT with brachytherapy and platinum-containing chemotherapy as a radio sensitizer. Or **Complete surgery**: complete parametectomy and upper vaginectomy with pelvic lymphadenectomy with or without para-aortic lymph node sampling.	No recommendation	No recommendation
Any	Positive metastatic workup	Or positive margin	**concurrent chemoradiation:** For patients with positive metastatic workup or positive margin, pelvic EBRT with brachytherapy and platinum-containing chemotherapy as a radio sensitizer—should be administered.	No recommendation	No recommendation

Table 23: Comparative summary of evidence from source guidelines for adjuvant treatment of cervical cancer after Radical hysterectomy with Pelvic Lymph node dissection (PLND) (22–24)

	Guidelines		
Surgical findings	**NCCN**	**KSGO**	**ASCO**
Negative nodes, negative margins, negative parametrium	**Surveillance:** No additional adjuvant therapy is required in patients with negative pelvic lymph nodes, negative surgical margins, and negative parametrium. Or **Concurrent chemoradiation:** Patients meeting Sedlis criteria* may receive pelvic external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy.	**Surveillance:** No additional adjuvant therapy is required in patients with negative pelvic lymph nodes, negative surgical margins, and negative parametrium. Or **Concurrent chemoradiation:** Patients meeting Sedlis criteria may receive pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy.	**Surveillance:** No additional adjuvant therapy is required in patients with negative pelvic lymph nodes, negative surgical margins, and negative parametrium. Or **Concurrent chemoradiation:** Patients meeting Sedlis criteria may receive pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy.
Positive pelvic nodes and/or Positive surgical margin and/or Positive parametrium	**Concurrent chemoradiation:** Patients with positive pelvic lymph nodes, positive surgical margins, or parametrial involvement should receive pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy.	**Concurrent chemoradiation:** Patients with positive pelvic lymph nodes, positive surgical margins, or parametrial involvement should receive pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy.	**Concurrent chemoradiation:** Patients with positive pelvic lymph nodes, positive surgical margins, or parametrial involvement should receive pelvic EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy.
Para-aortic lymph	**Extended-field chemoradiation:** Patients with positive para-aortic lymph nodes	**Extended-field chemoradiation:** Patients with positive para-aortic lymph nodes without evidence of distant	**Extended-field chemoradiation:** Patients with positive para-aortic lymph nodes without evidence of

	Guidelines		
node positive by surgical staging	without evidence of distant metastatic disease should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.	metastatic disease should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.	distant metastatic disease should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.

Sedlis Criteria (Intermediate-Risk Factors)

Adjuvant pelvic radiotherapy should be considered in patients with node-negative disease, negative surgical margins, and no parametrial involvement but meets two criterions of any of the following combinations is a candidate for chemoradiation.:

Combination	***LVSI***	***Depth of stromal invasion***	***Tumor siz***
1.	*Positive*	*Deep one-third*	*≥4 cm*
2.	*Positive*	*Middle one-third*	*≥2 cm*
3.	*Positive*	*Superficial one-third*	*≥5 cm*
4.	*Negative*	*Deep or middle one-third*	*≥4 cm*

Table 24: Comparative summary of evidence from source guidelines for post-treatment surveillance in cervical cancer (22–24)

	Guidelines		
	NCCN	**KSGO**	**ASCO**
Follow-up schedule	Follow-up visits should occur every 3–6 months during the first 2 years, every 6–12 months during years 3–5, and annually thereafter.	Follow-up visits should occur every 3–6 months during the first 2 years, every 6–12 months during years 3–5, and annually thereafter.	Follow-up visits should occur every 3–6 months during the first 2 years, every 6–12 months during years 3–5, and annually thereafter.
History and physical examination	A complete history and physical examination, including mandatory speculum and pelvic examination, should be performed at every follow-up visit to evaluate for recurrence, treatment-related complications, and late effects of therapy.	A complete history and physical examination, including mandatory speculum and pelvic examination, should be performed at every follow-up visit to evaluate for recurrence, treatment-related complications, and late effects of therapy.	A complete history and physical examination, including mandatory speculum and pelvic examination, should be performed at every follow-up visit to evaluate for recurrence, treatment-related complications, and late effects of therapy.
Pap Smear (Cervical/vaginal cytology)	Cervical or vaginal cytology may be performed every 6–12 months where clinically indicated.	Cervical or vaginal cytology may be performed every 6–12 months where clinically indicated.	Not recommended because it is not specific
Chest radiograph	Routine chest radiography is not recommended but may be performed when clinically indicated.	Routine chest radiography is not recommended but may be performed when clinically indicated.	Routine chest radiography is not recommended but may be performed when clinically indicated.
PET-CT	PET-CT may be performed within 3–6 months after completion of treatment or when recurrence is clinically suspected, where available.	PET-CT may be performed within 3–6 months after completion of treatment or when recurrence is clinically suspected, where available.	PET-CT may be performed within 3–6 months after completion of treatment or when recurrence is clinically suspected, where available.
CT scan or MRI	Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or pelvic MRI may be performed within 3–6 months after treatment completion or when recurrence is clinically suspected.	Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or pelvic MRI may be performed within 3–6 months after treatment completion or when recurrence is clinically suspected.	Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or pelvic MRI may be performed within 3–6 months after treatment completion or when recurrence is clinically suspected.
Use of vaginal dilators post	No recommendation	No recommendation	No recommendation

	Guidelines		
Radiotherapy (30,31)			
Clinical interventions for treatment induced sexual difficulties* (32)	No recommendation	No recommendation	No recommendation
Laboratory assessment	Laboratory investigations, including complete hemogram, renal function tests, liver function tests, and other investigations, should be guided by clinical findings and treatment-related toxicities.	Laboratory investigations, including complete hemogram, renal function tests, liver function tests, and other investigations, should be guided by clinical findings and treatment-related toxicities.	Laboratory investigations, including complete hemogram, renal function tests, liver function tests, and other investigations, should be guided by clinical findings and treatment-related toxicities.
Patient education and supportive care	Patients should receive education regarding symptoms of recurrence, healthy lifestyle practices, exercise, nutrition, smoking cessation, sexual health*, and potential long-term and late effects of treatment. Supportive care measures may include vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated.	Patients should receive education regarding symptoms of recurrence, healthy lifestyle practices, exercise, nutrition, smoking cessation, sexual health, and potential long-term and late effects of treatment. Supportive care measures may include vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated.	Patients should receive education regarding symptoms of recurrence, healthy lifestyle practices, exercise, nutrition, smoking cessation, sexual health, and potential long-term and late effects of treatment. Supportive care measures may include vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated.
**Evaluate worry of sex owing to worry of cancer recurrence, passing cancer to partner, contaminating the partner with radiotherapy, sexual discomfort and anxiety/loss of sexual desire due to vaginal dryness, stenosis, shortening, bleeding, discharge, and other problems of cancer treatment.*			

Table 25: Comparative summary of evidence from source guidelines for treatment of cervical cancer recurrence (22–24)

			Guidelines		
	Prior radiation treatment	**Location of the disease**	**NCCN**	**KSGO**	**ASCO**
Local/regional recurrence	No prior radiotherapy or recurrence outside previously irradiated field	-	**Concurrent chemoradiation:** Patients without prior pelvic radiotherapy or with recurrence outside a previously irradiated field should receive pelvic external beam radiotherapy (EBRT) with brachytherapy and platinum-based radiosensitizing chemotherapy. Or Surgical resection if feasible after thorough assessment for operability and multidisciplinary team (MDT) discussion	**Concurrent chemoradiation:** Patients without prior pelvic radiotherapy or with recurrence outside a previously irradiated field should receive pelvic EBRT with brachytherapy and platinum-based radiosensitizing chemotherapy.	**Concurrent chemoradiation:** Patients without prior pelvic radiotherapy or with recurrence outside a previously irradiated field should receive pelvic EBRT with brachytherapy and platinum-based radiosensitizing chemotherapy.
	Prior radiotherapy	Central disease	**Pelvic exenteration:** Surgical	**Pelvic exenteration:** Surgical management may include:	**Pelvic exenteration:** Surgical

			Guidelines		
			management may include: •**Anterior exenteration** for disease involving the bladder •**Posterior exenteration** for disease involving the rectum •**Total pelvic exenteration** for disease involving both the bladder and rectum Or Re-irradiation with brachytherapy may be considered in selected patients. Or Systemic therapy may include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel, with or without bevacizumab. Tumors that are Programmed Death –Ligand 1 (PD-L1) positive or have a high tumor mutational burden may be considered for pembrolizumab. Or EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	• **Anterior exenteration** for disease involving the bladder • **Posterior exenteration** for disease involving the rectum • **Total pelvic exenteration** for disease involving both the bladder and rectum Or Re-irradiation with brachytherapy may be considered in selected patients. Or Systemic therapy may include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel, with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for pembrolizumab. Or EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	management may include: • **Anterior exenteration** for disease involving the bladder • **Posterior exenteration** for disease involving the rectum • **Total pelvic exenteration** for disease involving both the bladder and rectum Or Re-irradiation with brachytherapy may be considered in selected patients. Or Systemic therapy may include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel, with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for pembrolizumab. Or EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.
	Prior radiotherapy	Non central disease	Management should include platinum **chemotherapy** (cisplatin or carboplatin + paclitaxel) with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for **pembrolizumab**. Or	Management should include platinum **chemotherapy** (cisplatin or carboplatin + paclitaxel) with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for **pembrolizumab**. Or EBRT may be provided on an individualized basis	Management should include platinum **chemotherapy** (cisplatin or carboplatin + paclitaxel) with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for **pembrolizumab**. Or

			Guidelines		
			EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.

Table 26: Comparative summary of evidence from source guidelines for management of small cell neuroendocrine carcinoma of the cervix (22–24)

		Guidelines		
Stage	**Tumor size**	**NCCN**	**KSGO**	**ASCO**
Disease confined to the cervix	Tumor ≤ 4cm	**Radical surgery:** Radical hysterectomy with pelvic lymph node dissection followed by adjuvant platinum-etoposide chemotherapy is recommended for selected patients with tumors ≤4 cm. Chemotherapy regimens may include cisplatin/etoposide or carboplatin/etoposide. or **Concurrent chemoradiation:** Pelvic external beam radiotherapy (EBRT) with brachytherapy and platinum-etoposide chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.	No recommendation	No recommendation
	Tumor > 4cm	**Concurrent chemoradiation:** Pelvic EBRT with brachytherapy and platinum-etoposide chemotherapy is recommended for tumors >4 cm. Or **Neo-adjuvant chemotherapy followed by surgery:** Neo-adjuvant chemotherapy consisting of cisplatin/etoposide* or carboplatin/etoposide may be administered. Patients demonstrating adequate tumor response may subsequently undergo radical hysterectomy followed by adjuvant radiotherapy or chemoradiation.	No recommendation	No recommendation
Locally advanced disease		**Concurrent chemoradiation:** Patients with locally advanced disease should receive pelvic EBRT with brachytherapy and platinum-etoposide chemotherapy.	No recommendation	No recommendation
Metastatic disease		**Systemic therapy:** Management should include systemic platinum-etoposide chemotherapy consisting of cisplatin or carboplatin with etoposide. EBRT may be administered on an individualized basis when clinically indicated. Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.	No recommendation	No recommendation

		Guidelines
**Etoposide dose is 100mg/m^2 and cisplatin 75mg/m^2 given every three weeks for six cycles*		

Table 27: Comparative summary of evidence from source guidelines for initiating neo-adjuvant chemotherapy before chemo radiation in patient with cancer of the cervix (22–24)

	Guidelines		
	NCCN	**KSGO**	**ASCO**
Neo-adjuvant chemotherapy before radiation in low resource areas	No recommendation	No recommendation	Before commencing chemoradiation, it is advised to administer carboplatin Area Under the Curve (AUC) 2 on a weekly basis in conjunction with paclitaxel 80 mg/m² for a period of six weeks (33,34). or Paclitaxel 175 mg/m² is administered every three weeks for three cycles in conjunction with carboplatin AUC 5–6. The minimal toxicity of this regimen renders It's a viable alternative to the weekly administration of paclitaxel.

Table 28: Comparative summary of evidence from source guidelines for salvage surgery for cervical cancer residual disease after radiotherapy (22–24,35–37)

Criteria	**NCCN**	**KSGO**	**ASCO**
Patient with locally advanced cervical cancer (1B2-IVA) with histology confirmed residual disease after chemoradiation therapy. • No distant metastasis • Operable tumors (tumor less than 3cm, no pelvic side wall involvement) (assessment done by imaging and clinical exam)	No recommendation	No recommendation	**Simple or radical hysterectomy:** In selected patients with residual disease confined to the cervix and no evidence of distant metastasis, simple or radical hysterectomy may be performed, with or without pelvic lymph node dissection.
Patient with disease involving vulva, anus or lower vagina	No recommendation	No recommendation	T**otal pelvic exenteration:** Total pelvic exenteration may be performed in patients with disease involving the lower vagina, anus, or vulva.
Patient with Disease involving cervix, anterior upper vagina and bladder	No recommendation	No recommendation	**Anterior pelvic exenteration:** Anterior pelvic exenteration may be performed in patients with disease involving the bladder and anterior pelvic compartment.
Patient with disease involving posterior upper vagina or rectum	No recommendation	No recommendation	**Posterior pelvic exenteration:** Posterior pelvic exenteration may be performed in patients with disease involving the posterior pelvic compartment, including the rectum or posterior upper vagina.

Table 29: Comparative summary of evidence from source guidelines for palliative and supportive care in patient with cancer of the cervix (22–24)

	Guidelines		
Criteria	**NCCN**	**KSGO**	**ASCO**
Counseling	Counselling should address: • Benefits and burdens of cancer-directed therapy • Patient, family, and caregiver goals, values, expectations, and priorities	Counselling should address: • Benefits and burdens of cancer-directed therapy • Patient, family, and caregiver goals, values, expectations, and	Counselling should address: • Benefits and burdens of cancer-directed therapy • Patient, family, and caregiver goals, values, expectations, and priorities • Psychosocial and spiritual distress • Educational and informational

	Guidelines		
	• Psychosocial and spiritual distress • Educational and informational needs • Cultural factors influencing care Referral for specialist palliative care, end-of-life care, nutritional support, and hospice care should be considered where appropriate.	priorities • Psychosocial and spiritual distress • Educational and informational needs • Cultural factors influencing care Referral for specialist palliative care, end-of-life care, nutritional support, and hospice care should be considered where appropriate.	needs • Cultural factors influencing care Referral for specialist palliative care, end-of-life care, nutritional support, and hospice care should be considered where appropriate.
Symptoms management	Symptoms should be routinely assessed and managed appropriately. Common symptoms include pain, dyspnea, anorexia/cachexia, nausea and vomiting, constipation, diarrhea, malignant bowel obstruction, fatigue, weakness/asthenia, insomnia, delirium, malignant wounds, lymphedema, hormone-related symptoms, psychological distress, and immunotherapy-related toxicities.	Symptoms should be routinely assessed and managed appropriately. Common symptoms include pain, dyspnea, anorexia/cachexia, nausea and vomiting, constipation, diarrhea, malignant bowel obstruction, fatigue, weakness/asthenia, insomnia, delirium, malignant wounds, lymphedema, hormone-related symptoms, psychological distress, and immunotherapy-related toxicities.	Symptoms should be routinely assessed and managed appropriately. Common symptoms include pain, dyspnea, anorexia/cachexia, nausea and vomiting, constipation, diarrhea, malignant bowel obstruction, fatigue, weakness/asthenia, insomnia, delirium, malignant wounds, lymphedema, hormone-related symptoms, psychological distress, and immunotherapy-related toxicities.
Palliative radiotherapy	**Indications for palliative radiotherapy include:** • Control of local symptoms such as bleeding and pain • Reduction of tumor burden in advanced disease • Palliation of brain and spinal/bone metastases • Poor performance status precluding radical treatment • Limited life expectancy **Common External Beam Radiation Therapy (EBRT) regimens include:** • 20 Grays (Gy in 5 fractions • 30 Gy in 10 fractions • 10 Gy monthly for 2 fractions • 45 Gy in 20 fractions	No recommendation	**Indications for palliative radiotherapy include:** • Control of local symptoms such as bleeding and pain • Reduction of tumor burden in advanced disease • Palliation of brain and spinal/bone metastases • Poor performance status precluding radical treatment • Limited life expectancy **Common EBRT regimens include:** • 20 Gy in 5 fractions • 30 Gy in 10 fractions • 10 Gy monthly for 2 fractions • 45 Gy in 20 fractions
Vaginal bleeding management	Medical management may include: • Vaginal packing with or without Monsel's solution or formalin under sedation where appropriate • Catheterization if prolonged vaginal packing is required • Oral or intravenous tranexamic acid • Blood transfusion and volume replacement where indicated	No recommendation	No recommendation

	Guidelines		
	• Broad-spectrum antibiotics where infection or necrotic tumor is suspected Hemostatic radiotherapy may be considered when bleeding is uncontrolled by medical management and packing. Common regimens include: • 8–10 Gy single fraction • 30 Gy in 10 fractions • 45 Gy in 15 fractions • 4 Gy in 3–5 fractions In patients proceeding to curative treatment, the hemostatic radiation dose should be considered when calculating the total definitive radiation dose.		
Extrinsic ureteral obstruction due to cervical cancer (18,38,39)	Diagnosis may be established using ultrasound, CT scan, or MRI. Percutaneous nephrostomy tubes are preferred over internal ureteric stents in selected patients because they may not require anesthesia and are associated with lower procedural complexity in advanced disease. Nephrostomy tubes or ureteric stents should be changed every 3–4 months or according to institutional practice. Patients with vesicovaginal fistulae may receive palliative urinary diversion with percutaneous nephrostomy tubes where appropriate.	No recommendation	No recommendation

7.0 GOSK recommendations

The recommendations in this section represent the GOSK-adapted recommendations for the management of cervical cancer in Kenya. They were developed from the review and contextualization of recommendations from the selected NCCN, ASCO, and KSGO guidelines, with consideration of the Kenyan healthcare and resource context. The recommendations cover diagnostic evaluation, stage-specific treatment, management of incidental cervical cancer, adjuvant treatment, surveillance, recurrent disease, small-cell neuroendocrine carcinoma, neoadjuvant chemotherapy, salvage surgery, and palliative and supportive care.

Table 30: GOSK recommendations on diagnostic evaluation for cancer of the cervix

Diagnostic workup	Key components	GOSK recommendations
Clinical evaluation	History	Obtain a comprehensive history including symptoms suggestive of cervical cancer such as abnormal uterine bleeding, foul-smelling vaginal discharge, dyspareunia, lower abdominal pain, unexplained weight loss, deranged renal function, and passage of urine or feces vaginally. Risk factors should also be assessed, including lack of regular cervical cancer screening, lack of Human Papilloma Virus (HPV) vaccination, multiple

Diagnostic workup	Key components	GOSK recommendations
		sexual partners, early onset of sexual intercourse, high parity, prolonged use of oral contraceptives, smoking, and immunosuppression.
	Physical examination	Perform a comprehensive general and systemic examination, including assessment for potential metastatic disease involving the liver, lungs, and central nervous system. **For Pelvic examination:** **Examination without anaesthesia** Perform a comprehensive general and pelvic examination, including speculum, bimanual, and rectovaginal examination, to: • Identify a suspicious cervical lesion or mass. • Assess vaginal, parametrial, and pelvic wall involvement. • Estimate the probable clinical stage of disease. • Evaluate for signs of locally advanced or metastatic disease. • Facilitate biopsy of visible cervical lesions where clinically appropriate. **Examination under anaesthesia (EUA)** EUA may be performed when adequate pelvic assessment cannot be achieved during office examination or when detailed evaluation of disease extent is required. EUA may be used to: • Assess local tumor extent and improve staging accuracy. • Evaluate parametrial involvement, vaginal extension, pelvic sidewall involvement, and adjacent organ invasion. • Facilitate biopsy when office biopsy is inadequate, poorly tolerated, or additional tissue sampling is required. • Guide treatment planning, particularly in patients with bulky, locally advanced, or advanced-stage disease.
	Biopsy	**Histological evidence** is required for the conclusive diagnosis of cervical cancer: • **Colposcopy-directed biopsy** can be performed on patients who do not have visible cervical lesions but present with either of the following: ▪ Patients with high-grade screening results which include pap tests showing high grade squamous intraepithelial lesion (HSIL), atypical squamous cells that cannot exclude HSIL (ASC-H), or atypical glandular cells (AGC). ▪ Patients with high-risk Human Papilloma Virus (HPV) strains: positive testing for HPV 16 or HPV 18, which are mostly associated with cervical cancer. ▪ Persistent HPV infection: Positive high-risk HPV test results for two or more consecutive years, even if cytology (the pap test) remains normal. ▪ High-risk population: Patients who are immunocompromised, such as those living with HIV, who show low-grade or worse cytological abnormalities. • Patients with visible cervical lesions suspicious for early-stage disease (stages I–II) should be considered for biopsy with EUA, especially where adequate office biopsy cannot be obtained or detailed assessment of local disease extent is required. • Patients with visible lesions and advanced-stage disease (stages III–IV) may undergo biopsy without anesthesia. However, biopsy during EUA is acceptable when clinically indicated or when the patient is already undergoing EUA for assessment. To enhance diagnostic yield, necrotic tissue should be avoided during punch biopsy.
Laboratory tests	Supportive Investigations	There are no diagnostic laboratory findings specific for cervical cancer. Laboratory investigations are supportive and are performed to assess patient fitness, and to prepare for decisive therapy. Recommended investigations include: • A full hemogram, • Renal function tests • Liver function tests • HIV testing, and urinalysis
Imaging	Metastatic workup	All patients with confirmed cervical cancer should undergo complete radiologic staging as follows: ▪ Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or abdominopelvic MRI should be performed to assess local disease extent and metastatic disease. MRI is preferred for local pelvic staging where available; however, CT remains an acceptable alternative in resource-limited settings where MRI is not available.

Diagnostic workup	Key components	GOSK recommendations
		PET-CT may be used as the primary staging imaging modality where available or when there are equivocal findings on conventional imaging. In the absence of CT chest imaging, a chest X-ray may be performed in resource-limited settings to evaluate for pulmonary metastasis. In the absence of CT/MRI Abdominal Pelvis, abdominopelvic ultrasound can be performed as the initial imaging modality to assess the cervical mass and evaluate disease extent. Then the patient will be referred to resourceful setting for complete radiologic staging as above. Cystoscopy and/or colonoscopy may be performed when there is suspicion of bladder or rectal involvement.

Table 31: GOSK recommendations for the management of cervical cancer stage 1A1 without Lymphovascular Space Invasion (LVSI)

Stage	Fertility- / non–fertility-sparing and margin status	GOSK recommendations
IA1	Fertility-sparing primary treatment	**Cold knife conization:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, cold knife conization is recommended over loop electrosurgical excision procedure (LEEP).
IA1	Non–fertility-sparing primary treatment	**Simple or extrafascial hysterectomy:** Simple or extrafascial hysterectomy may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA1	Positive cone/LEEP margin	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, repeat cold knife conization or trachelectomy may be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with pelvic lymph nodes dissection (PLND) is recommended. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of EBRT with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA1	Negative cone/LEEP margin	**Surveillance:** Patients with negative cone or LEEP margins do not require additional adjuvant therapy and should undergo surveillance. Or **Simple hysterectomy:** Simple hysterectomy may be performed in patients who have completed childbearing and desire definitive surgical management.

Table 32: GOSK recommendations for the management of cervical cancer stage IA1 with LVSI and 1A2

Stage	Fertility- / non–fertility-sparing and margin status/	GOSK recommendations
IA1 with LVSI and IA2	Fertility-sparing primary treatment	**Radical trachelectomy or conization with pelvic lymph nodes dissection (PLND):** Fertility-sparing management should be discussed with patients who wish to preserve fertility. If the diagnosis is established by punch biopsy, radical trachelectomy or conization with PLND is recommended.
IA1 with LVSI and IA2	Non–fertility-sparing primary treatment	**Radical hysterectomy:** Radical hysterectomy with PLND may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA1 with LVSI and IA2	Positive cone/Loop Electrosurgical Excision Procedure (LEEP) margin	**Fertility-sparing:** For patients with positive cone or LEEP margins who wish to preserve fertility, radical trachelectomy with PLND should be performed. **Non–fertility-sparing:** For patients with positive cone or LEEP margins who do not desire fertility preservation, radical hysterectomy with PLND is recommended. Concurrent chemoradiation consisting of EBRT with brachytherapy and

Stage	Fertility- / non–fertility-sparing and margin status/	GOSK recommendations
		platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
IA1 with LVSI and IA2	Negative cone/LEEP margin	**Fertility-sparing:** Pelvic lymph node dissection should be performed in patients wishing to preserve fertility. Patients with negative lymph nodes do not require adjuvant therapy and should undergo surveillance (see Table 38). **Non–fertility-sparing:** Radical hysterectomy with PLND may be performed in patients who do not desire fertility preservation.

Table 33: GOSK recommendations on primary treatment for stage IB1

Stage	Fertility- / non–fertility-sparing	GOSK recommendations
IB1	Fertility-sparing primary treatment	**Radical trachelectomy:** Fertility-sparing management should be discussed with patients who wish to preserve fertility. Radical trachelectomy with pelvic lymph nodes dissection (PLND) is recommended in patients with stage IB1.
IB1	Non–fertility-sparing primary treatment	**Radical hysterectomy:** Radical hysterectomy with PLND may be performed in patients who do not wish to preserve fertility. Or **Concurrent chemoradiation:** Concurrent chemoradiation consisting of external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.

Table 34: GOSK recommendations on primary treatment for stage IB2 and IIA1,1B3 and IIA2

Stage	GOSK recommendations
1B2 and IIA1	▪ Stage IB2 cervical cancer is best managed with radical hysterectomy and pelvic lymph node dissection. Depending on clinical assessment and imaging findings, para-aortic lymph node assessment or sentinel lymph node mapping may be considered. ▪ Radical hysterectomy with ovarian preservation may be considered in selected patients with stage IIA1 cervical cancer after multi-disciplinary team (MDT) discussion and confirmation of negative pelvic lymph nodes by imaging and sentinel lymph node mapping, or lymph node biopsy. Or ▪ Concurrent chemoradiation consisting of pelvic EBRT with brachytherapy and platinum-based radiosensitizing chemotherapy should be administered in patients who are unsuitable for surgery or decline surgery.
1B3 and IIA2	Concurrent chemoradiation consisting of pelvic external beam radiotherapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients with stage IB3 and IIA2 cervical cancer.

Table 35: GOSK recommendations on primary treatment for stage IIB, III and IV

Stage	Nodes/local treatment	GOSK recommendations
IIB, III, and IVA	Positive pelvic nodes	Concurrent platinum-based chemoradiation consisting of pelvic external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy is recommended for patients without para-aortic lymph nodes metastasis.
IIB, III, and IVA	Positive para-aortic lymph nodes without distant metastasis	Patients with positive para-aortic lymph nodes and no distant metastasis should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.
IVB Or recurrence disease with distant metastasis	Amenable or not amenable to local therapy	Management should include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel*, with or without bevacizumab. Tumors that are programmed death ligand-1

Stage	Nodes/local treatment	GOSK recommendations
		(PD-L1) positive or have a high tumor mutational burden may be considered for pembrolizumab. EBRT may be provided on an individualized basis when clinically necessary. Palliative and supportive care should focus on symptom control and improving quality of life using a multidisciplinary approach.
Systemic therapy** ***First-line systemic therapy • *IV carboplatin AUC 4–7 or IV cisplatin 50–75 mg/m² combined with IV paclitaxel 135–175 mg/m² every 3 weeks for 6 cycles.* • *Bevacizumab 10–15 mg/kg may be added every 3 weeks where appropriate.* • *For PD-L1–positive tumors (combined positive score ≥1), pembrolizumab 200 mg IV every 3 weeks may be added.* ***Second-line/subsequent therapy*** • *Pembrolizumab may be considered for patients with PD-L1–positive tumors or high tumor mutational burden if not previously administered.* ***Other systemic therapy options*** • *IV bevacizumab 10–15 mg/kg every 3 weeks* • *IV paclitaxel 135–175 mg/m² every 3 weeks* • *Albumin-bound paclitaxel 125 mg/m² on days 1, 8, and 15 every 4 weeks* • *IV docetaxel 75 mg/m² every 3 weeks* • *IV Gemcitabine 800mg/m² once for 3 weeks.* • *IV topotecan 0.75mg/m2/day D1 D2 D3 every 3 weeks for 6 cycles*		

Table 36: GOSK recommendations on incidental finding of invasive cancer after simple (extra fascial) hysterectomy with negative margins and negative metastatic workup

Stage	GOSK recommendations
Stage IA 1 without LVSI	**Surveillance:** No additional adjuvant therapy is required for patients with stage IA1 disease without lymphovascular space invasion (LVSI) and with negative surgical margins.
Stage IA1 with LVSI and 1A2	**Pelvic lymph node dissection:** Patients with stage IA1 with LVSI and IA2 disease with negative margins and no evidence of distant metastasis on imaging should undergo pelvic lymph node dissection. Patients with negative lymph nodes should undergo surveillance. 0r Concurrent chemoradiation with pelvic external beam radiation therapy (EBRT) and platinum-based radio sensitizing chemotherapy may be administered in patients unsuitable for completion surgery or who decline surgery. Additional vaginal cylinder brachytherapy may be considered in selected patients with residual disease where technically feasible.
IB1 without intermediate-risk factors* -No LVSI -Depth of invasion < 10mm	**Pelvic lymphadenectomy**: Patient with stage IB1 with negative distant disease on imaging, pelvic lymphadenectomy should be performed, if the nodes are negative, the patient should undergo surveillance. 0r **concurrent chemoradiation:** For patients who prefer not to undergo pelvic lymphadenectomy or are unsuitable for it, pelvic EBRT with vaginal cylinder brachytherapy and platinum-containing chemotherapy as a radio sensitizer—should be administered.
Stage IB1 with intermediate-risk factors* and IB2	**Concurrent chemoradiation**: adjuvant treatment for patients with stage IB1 with intermediate risk factors and IB2 is pelvic EBRT with vaginal cylinder brachytherapy and platinum-containing chemotherapy as a radio sensitizer.

Table 37: GOSK recommendations on adjuvant treatment after Radical hysterectomy

Surgical findings	GOSK recommendations
Negative pelvic nodes, negative margins, negative parametrium	**Surveillance:** No additional adjuvant therapy is required in patients with negative pelvic lymph nodes, negative surgical margins, and negative parametrium who do not have intermediate risk factors/Sedlis criteria. Or

Surgical findings	GOSK recommendations
	Concurrent chemoradiation: Patients meeting Sedlis criteria** should receive pelvic external beam radiation therapy (EBRT) with vaginal cylinder brachytherapy and platinum-based radiosensitizing chemotherapy.
Positive pelvic nodes and/or Positive surgical margin and/or Positive parametrium	**Concurrent chemoradiation*:** Patients with positive pelvic lymph nodes, positive surgical margins, or parametrial involvement should receive pelvic EBRT with brachytherapy and platinum-based radiosensitizing chemotherapy.
Positive para-aortic lymph nodes identified during surgical staging	**Extended-field chemoradiation:** Patients with positive para-aortic lymph nodes without evidence of distant metastatic disease should receive extended-field EBRT with brachytherapy and concurrent platinum-based chemotherapy.

**The ideal time to initiate adjuvant chemoradiation is generally between 4and 6 weeks' post-surgery, and ideally no later than 8 weeks*

***Sedlis Criteria (Intermediate-Risk Factors)*

Patients who meet two criterions of the following combinations are the candidate for chemoradiation:

combination	*LVSI*	*Depth of stromal invasion*	*Tumor size*
1.	*Positive*	*Deep one-third*	*≥4 cm*
2.	*Positive*	*Middle one-third*	*≥2 cm*
3.	*Positive*	*Superficial one-third*	*≥5 cm*
4.	*Negative*	*Deep or middle one-third*	*≥4 cm*

Table 38: GOSK recommendations on surveillance

Clinical detail	GOSK recommendations
Follow-up schedule	Follow-up visits should occur every 3–6 months during the first 2 years, every 6–12 months during years 3–5, and annually thereafter.
History and physical examination	A complete history and physical examination, including mandatory speculum and pelvic examination, should be performed at every follow-up visit to evaluate for recurrence, treatment-related complications, and late effects of therapy.
Cervical/vaginal cytology (Pap smear)	Cervical or vaginal cytology may be performed every 6–12 months where clinically indicated.
CT scan or MRI	Contrast-enhanced CT scan of the chest, abdomen, and pelvis and/or pelvic MRI should be performed within 3–6 months after treatment completion or earlier when recurrence is clinically suspected, then annually up to 5 years. After 5 years post treatment, imaging are done when clinically indicated.
PET-CT	PET-CT may be performed within 3–6 months after completion of treatment or when recurrence is clinically suspected, where available.
Chest radiograph	Routine chest radiography is not recommended but may be performed when clinically indicated.
Laboratory assessment	Laboratory investigations, including complete hemogram, renal function tests, liver function tests, and other investigations, should be guided by clinical findings and treatment-related toxicities.
Patient education and supportive care	Patients should receive education regarding symptoms of recurrence, healthy lifestyle practices, exercise, nutrition, smoking cessation, sexual health, and potential long-term and late effects of treatment. Supportive care measures may include vaginal dilators, lubricants, moisturizers, and hormone therapy when indicated.

Table 39: GOSK recommendations on management for recurrence

	Prior radiation treatment	Location of the disease	GOSK recommendations
Local/regional recurrence	No prior radiotherapy or recurrence outside previously irradiated field	-	**Concurrent chemoradiation:** Patients without prior pelvic radiotherapy or with recurrence outside a previously irradiated field should receive pelvic external beam radiation therapy (EBRT) with brachytherapy and platinum-based radio sensitizing chemotherapy.
Local/regional recurrence	Prior radiotherapy	Central Disease	**Pelvic exenteration*:** Surgical management may include:

	Prior radiation treatment	Location of the disease	GOSK recommendations
			•**Anterior exenteration** for disease involving the bladder •**Posterior exenteration** for disease involving the rectum •**Total pelvic exenteration** for disease involving both the bladder and rectum Or Re-irradiation with brachytherapy may be considered in selected patients. Or Systemic therapy may include platinum-based chemotherapy consisting of cisplatin or carboplatin with paclitaxel, with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for pembrolizumab. Or EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.
Local/regional recurrence	Prior radiotherapy	Non central disease	Management should include platinum **chemotherapy** (cisplatin or carboplatin + paclitaxel) with or without bevacizumab. Tumors that are PD-L1–positive or have a high tumor mutational burden may be considered for **pembrolizumab**. Or EBRT may be provided on an individualized basis when clinically necessary. And Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.
*__Contraindications to pelvic exenteration__ • No biopsy. • Metastatic disease. • More than one pelvic lymph nodes positive, positive para-aortic node. • Disease involving pelvis peritoneum. • Fixed retzius space. • Candidate for radiotherapy.			

Table 40: GOSK recommendations on management for Small cell neuroendocrine carcinoma of the cervix

Stage	Tumor size	GOSK recommendations
Disease confined to the cervix	Tumor ≤ 4cm	**Radical surgery:** Radical hysterectomy with pelvic lymph node dissection followed by adjuvant platinum-etoposide chemotherapy is recommended for selected patients with tumors ≤4 cm. Chemotherapy regimens may include cisplatin/etoposide or carboplatin/etoposide. or **Concurrent chemoradiation:** Pelvic external beam radiotherapy (EBRT) with brachytherapy and platinum-etoposide chemotherapy may be administered in patients who are unsuitable for surgery or decline surgery.
Disease confined to the cervix	Tumor > 4cm	**Concurrent chemoradiation:** Pelvic EBRT with brachytherapy and platinum-etoposide chemotherapy is recommended for tumors >4 cm. Or **Neoadjuvant chemotherapy followed by surgery:** Neoadjuvant chemotherapy consisting of cisplatin/etoposide or carboplatin/etoposide may be administered. Patients demonstrating adequate tumor response may subsequently

Stage	Tumor size	GOSK recommendations
		undergo radical hysterectomy followed by adjuvant radiotherapy or chemoradiation.
Locally advanced disease	-	**Concurrent chemoradiation:** Patients with locally advanced disease should receive pelvic EBRT with brachytherapy and platinum-etoposide chemotherapy.
Metastatic disease	-	**Systemic therapy:** Management should include systemic platinum-etoposide chemotherapy consisting of cisplatin or carboplatin with etoposide. EBRT may be administered on an individualized basis when clinically indicated. Palliative and supportive care should focus on symptom control and quality of life using a multidisciplinary approach.

Table 41: GOSK recommendations on neoadjuvant chemotherapy while waiting chemoradiation

Clinical detail	GOSK recommendations
Neoadjuvant (NACT) chemotherapy before chemoradiation in resource-limited settings	NACT may be offered to before commencement of chemoradiation: • The first line regimen should be weekly carboplatin area under the curve (AUC) 2 in combination with paclitaxel 80 mg/m² for six weeks (33,34). • Alternatively, paclitaxel 175 mg/m² in combination with carboplatin AUC 5–6 may be administered every three weeks for three cycles. The lower toxicity profile of this regimen makes it a viable alternative to weekly paclitaxel administration.

Table 42: GOSK recommendations on salvage surgery for residual disease after radiotherapy

Criteria	GOSK recommendations
Patients with locally advanced cervical cancer (IB2–IVA) and histologically confirmed residual disease after chemoradiation, disease confined to cervix with: •No distant metastasis • Operable disease with no pelvic sidewall involvement • Multidisciplinary team (MDT) discussion (Assessment should be based on clinical examination and imaging findings.)	**Simple or radical hysterectomy:** In selected patients with residual disease confined to the cervix and no evidence of distant metastasis, simple or radical hysterectomy may be performed, with or without pelvic lymph node dissection.
Patient with disease involving vulva, anus or lower vagina	T**otal pelvic exenteration*:** Total pelvic exenteration may be performed in patients with disease involving the lower vagina, anus, or vulva.
Patient with disease involving cervix, anterior upper vagina and bladder	**Anterior pelvic exenteration:** Anterior pelvic exenteration may be performed in patients with disease involving the bladder and anterior pelvic compartment.
Patient with disease involving posterior upper vagina or rectum	**Posterior pelvic exenteration:** Posterior pelvic exenteration may be performed in patients with disease involving the posterior pelvic compartment, including the rectum or posterior upper vagina.
***Contraindications to pelvic exenteration** • No biopsy. • Metastatic disease. • More than one pelvic lymph nodes positive, positive para-aortic node. • Disease involving pelvis peritoneum. • Fixed Retzius space. • Candidate for radiotherapy.	

Table 43: GOSK recommendations on palliative and supportive care

Criteria	GOSK recommendations
Counseling	Counselling should address: • Benefits and burdens of cancer-directed therapy. • Patient, family, and caregiver goals, values, expectations, and priorities. • Psychosocial and spiritual distress. • Educational and informational needs. • Cultural factors influencing care.

Criteria	GOSK recommendations
	Referral for specialist palliative care, end-of-life care, nutritional support, and hospice care should be considered where appropriate.
Symptoms management	Symptoms should be routinely assessed and managed appropriately. Common symptoms include pain, dyspnea, anorexia/cachexia, nausea and vomiting, constipation, diarrhea, malignant bowel obstruction, fatigue, weakness/asthenia, insomnia, delirium, malignant wounds, lymphedema, hormone-related symptoms, psychological distress, and immunotherapy-related toxicities.
Palliative radiotherapy	**Indications for palliative radiotherapy include:** • Control of local symptoms such as bleeding and pain. • Reduction of tumor burden in advanced disease. • Palliation of brain and spinal/bone metastases. • Poor performance status precluding radical treatment. • Limited life expectancy. **Common external beam radiation therapy (EBRT) regimens include:** • 20 Gy in 5 fractions. • 30 Gy in 10 fractions. • 10 Gy monthly for 2 fractions.8 Gy single fraction.
Vaginal bleeding management	Medical management may include: • Vaginal packing with or without Monsel's solution or formalin under sedation where appropriate • Catheterization if prolonged vaginal packing is required • Oral or intravenous tranexamic acid • Blood transfusion and volume replacement where indicated • Broad-spectrum antibiotics where infection or necrotic tumor is suspected Hemostatic radiotherapy may be considered when bleeding is uncontrolled by medical management and packing. Common regimens include: EBRT 20 Gy in 5 fractions or Brachytherapy 5 Gy given on Days 1 and 2. In patients proceeding to curative treatment, the hemostatic radiation dose should be considered when calculating the total definitive radiation dose.
Extrinsic ureteral obstruction due to cervical cancer	Diagnosis may be established using ultrasound, CT scan, or MRI. Percutaneous nephrostomy tubes are preferred over internal ureteric stents in selected patients because they may not require anesthesia and are associated with lower procedural complexity in advanced disease. Nephrostomy tubes or ureteric stents should be changed every 3–4 months or according to institutional practice. Patients with vesicovaginal fistulae (VVF) may receive palliative urinary diversion with percutaneous nephrostomy tubes where appropriate. Then VVF with no evidence of cancer and 6-12 months after completion of concurrent chemoradiation can be repaired.

Table 44: GOSK recommendations on post-surgical surveillance

Timelne	GOSK recommendations
0-72 Hours	• Assess for immediate postoperative complications, including wound discharge, bleeding, swelling, infection, or redness. • Counsel the patient and/or caregiver regarding intraoperative findings and the immediate postoperative plan. • Deep venous thrombosis (DVT)/venous thromboembolism (VTE) prophylaxis: initiated post operatively (typically within 12 to 24 hours once surgical homeostasis is secure), medications include Low-Molecular-Weight Heparin (LMWH): Enoxaparin 40mg subcutaneously once daily or Unfractionated Heparin (UFH): 5,000 units subcutaneously every 8 to 12 hours. • Continuation of subcutaneous pharmacological prophylaxis should be extended to 28 days as the risk of VTE peaks 1 to 3 weeks' post-surgery. Drugs like Rivaroxiban 10mg once daily or Apixaban 2.5mg twice daily can be switched from subcutaneous once patient is discharged. • Provide wound care and adequate pain management. • Encourage early ambulation and oral feeding as tolerated. • Discharge the patient once clinically stable.
2 Weeks	• Assess wound healing, physical activity, nutritional status, and any symptoms suggestive of postoperative complications.

Timelne	GOSK recommendations
	• Remove sutures or staples where indicated. • Review histopathology results if available. • Discuss the need for adjuvant therapy where appropriate.
1 Month	Assess and manage any ongoing postoperative symptoms or complications. • Review and discuss histopathology findings with the patient and/or caregiver. • Discuss adjuvant therapy where indicated, including goals of care and prognosis.
3 Months	Baseline whole-body FDG-PET/CT or other appropriate imaging may be performed where clinically indicated.
General recommendation	Follow-up timelines may be individualized according to the patient's clinical condition, postoperative recovery, and treatment-related complications.
1. Timeline can be adjusted based on patients' clinical status/surgical complications.	

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