



CLINICAL PRACTICE GUIDELINES

Cervical Cancer



Ministry
of Health

NMRC
National Medical
Research Council

**National Committee
on Cancer Care**

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Levels of evidence and grades of recommendation

Levels of evidence

Level	Type of Evidence
Ia	Evidence obtained from meta-analysis of randomised controlled trials.
Ib	Evidence obtained from at least one randomised controlled trial.
IIa	Evidence obtained from at least one well-designed controlled study without randomisation
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study.
III	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

Grades of recommendation

Grade	Recommendation
A (evidence levels Ia, Ib)	Requires at least one randomised controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.
B (evidence levels IIa, IIb, III)	Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.
C (evidence level IV)	Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates absence of directly applicable clinical studies of good quality.
GPP (good practice points)	Recommended best practice based on the clinical experience of the guideline development group.

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MOH Clinical Practice Guidelines 1/2003

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Statement of Intent

These guidelines are not intended to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge advances and patterns of care evolve.

The contents of this publication are guidelines to clinical practice, based on the best available evidence at the time of development. Adherence to these guidelines may not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care. Each physician is ultimately responsible for the management of his/her unique patient in the light of the clinical data presented by the patient and the diagnostic and treatment options available.

Foreword

Cervical cancer remains one of the major cancers in Singapore. Although the incidence of cervical cancer has been declining since 1978, the rate of decline has been slow. It remains the 4th commonest cancer in females to date. This is despite the fact that cervical cancer is one of the cancers most amenable to early detection, prevention and treatment.

Cervical cancer screening will allow doctors to detect pre-invasive disease and early-stage cervical cancer, both of which carry a good prognosis. Doctors should therefore encourage eligible patients, especially those with recognised risk factors, to be screened for cervical cancer on a regular basis. At the same time, to ensure that women with cervical cancer get the most appropriate treatment, it is also imperative that evidence-based guidelines on the treatment of cervical cancer be published to help all doctors looking after cervical cancer patients to practise evidence-based medicine.

These guidelines were prepared by a 16-member Clinical Practice Guidelines For Cervical Cancer Workgroup, chaired by A/Prof Ho Tew Hong. A unique feature of these guidelines is the inclusion of a model Patient Education Brochure which we hope doctors will find useful for their practice.

We are delighted to present these guidelines, which are based on the best current scientific evidence. We strongly encourage all doctors who look after patients with cervical cancer to incorporate the guidelines into their management of these patients.

**PROFESSOR TAN CHORH CHUAN
DIRECTOR OF MEDICAL SERVICES**

Contents

	Page
Executive summary of recommendations	1
1 Introduction	3
2 Screening	5
3 Diagnosis	6
4 Classification and staging of cervical cancer	7
5 Microinvasive cervical cancer – FIGO Stage IA	11
6 Early localised cervical cancer – FIGO Stage IB1-IIA	13
7 Early localised cervical cancer – Bulky tumours (>4 cm)	15
8 Locally advanced cervical cancer – FIGO Stage IIB-IVA	16
9 Metastatic cervical cancer	17
10 Recurrent cancer	18
11 Special considerations	19
12 Palliative medical care and hospice services	21
13 Clinical audit	22
14 Recommendations for research	23
References	24
Annex A Self-assessment (MCQs)	36
Workgroup	41

Executive summary of recommendations

Details of recommendations can be found in the main text at the pages indicated.

Screening

B To reduce the incidence and mortality rate of cervix cancer, effective screening and preventive strategy must be actively pursued, in addition to early detection of disease and effective therapy. (pg 5)

Grade B, Level IIa

Stage IA

B Total hysterectomy is the treatment of choice for microinvasive cervical cancer in patients who have completed their family. In selected patients, fertility-sparing surgery may be considered. (pg 11)

Grade B, Level III

Stage IB – IIA

A Current evidence indicates that both radical surgery and pelvic radiotherapy result in equivalent cure rates for early localised cervical cancer. (pg 13)

Grade A, Level Ib

A The addition of post-operative treatment using a combination of chemotherapy and radiotherapy has been shown to improve survival outcome for patients with tumour involvement of pelvic lymph nodes, resection margins and/or parametrial tissue. (pg 13)

Grade A, Level Ib

The optimal treatment for bulky (>4cm) cervical cancer remains controversial.

Stage IIB – IVA

A The treatment of choice for locally advanced cervical cancer is concurrent chemoradiation. (pg 16)

Grade A, Level Ia

Metastatic cancer

B The main aim of treatment for patients with metastatic cancer is palliation of symptoms. (pg 17)

Grade B, Level IIa

Recurrent cancer

B The treatment employed for patients with recurrent cervical cancer is dependent on their previous treatment modality and the exact anatomical site of relapse. (pg 18)

Grade B, Level IIa

Ovarian conservation

B Ovarian conservation should be considered for young patients. (pg 19)

Grade B, Level IIa

Hormone replacement therapy

B There is no clinical evidence that Hormone Replacement Therapy should be withheld from patients with a history of cervical cancer. (pg 19)

Grade B, Level IIa

1.1 Cervical cancer in Singapore

Cervical cancer was one of the top 3 cancers in females in the late 1960s. It became the 4th commonest cancer in the period 1978-1982 and its incidence has been declining steadily since 1978. Although it is a cancer that is most amenable to screening, prevention and early treatment, its rate of decline has been slow and it remains the 4th commonest cancer in females to-date.

In the 1993-1997 Singapore Cancer Registry Report, an average of 225 new cases of cervical cancer was reported annually and cervical cancer accounted for 7.2% of all female cancers. The incidence (age-standardised rate) had declined from 18.1 (1968-1972) to 14.2 (1993-1997) per 100,000 per year. For females between the age of 35 to 64, cancer of the cervix remained common.

1.2 Guidelines for the treatment of cervix cancer

With the increasing understanding of the natural history of the disease, the treatment of cervical cancer has become more individualised. Certain areas of the treatment of cervix cancer are well established, while many other aspects remain controversial.

While clinicians await data on more definitive therapeutic options to become available, there is therefore a need for Clinical Practice Guidelines to define the current optimal management for this cancer.

1.3 Guidelines development

The workgroup comprises a large group of actively practising gynaecological oncologists from the various public health care institutions and the private sector. Current clinical evidence was reviewed and discussed thoroughly. Reference Guidelines from reputed international institutions were used and the draft was presented to international experts.

This set of management guidelines covers the majority, and common aspects, of cervical cancer but is not meant to be exhaustive. Where situation necessitates, the treatment of a patient must be tailored to the individual.

Revision on these guidelines will be done periodically as more data become available to clinicians worldwide.

2 Screening

Well-run population-based cervical cancer screening programmes with good coverage can reduce the incidence and mortality of cervical cancer.⁶⁻⁷

3 Diagnosis

1. The diagnosis of cervical cancer must be based on histopathology.
2. Early diagnosis of cervical cancer can be extremely challenging because of 3 factors:
 - i. Frequently asymptomatic nature of early disease
 - ii. Origin of some tumours from within the endocervical canal or beneath the epithelium of the ectocervix, making visualisation on speculum examination impossible
 - iii. Significant false-negative rate for Pap smears, even in women having regular screening
3. Any obvious growth or ulcerative lesion should be biopsied. An unhealthy looking cervix should be further evaluated even if the Pap smear has been/is normal.
4. A single large cone biopsy with clear margins is necessary to evaluate micro-invasive disease of the cervix.

4 Classification and staging of cervical cancer

The classification and staging of tumours have been considered not only by the Gynecology Oncology Committee of the International Federation of Gynecology and Obstetrics (FIGO), but also by the International Union Against Cancer (UICC), especially the Tumour, Nodes, Metastasis (TNM) Committee. Stages are defined by TNM or FIGO classification, with FIGO staging being conventionally used.

The staging procedures allowed by FIGO are as follows:

Physical Examination	Palpation for lymph nodes Examination of vagina Bimanual rectovaginal examination (Preferably under anaesthesia)
Radiological Studies	Chest x-ray Skeletal x-ray Intravenous urogram Barium enema
Procedures	Colposcopy Biopsy Cone biopsy of cervix Cystoscopy Proctoscopy Hysteroscopy Endocervical curettage

Optional Studies:

Information obtained from these studies should not be used to alter the FIGO staging of the patient.

Optional Studies	Ultrasonography
	Computerised axial tomography (CT Scan)
	Magnetic resonance imaging
	PET scan
	Lymphangiography
	Radionucleotide scanning
	Laparoscopy
	Laparotomy
	Fine needle aspiration biopsy of scan- detected suspicious lymph node

4.1 FIGO (1995) staging

Stage 0	Primary tumour cannot be assessed. No evidence of primary tumour. Carcinoma in-situ.
Stage I	Cervical carcinoma is strictly confined to the uterus (extension to corpus should be disregarded).
Stage IA	Invasive cancer identified only microscopically. All gross lesions, even with superficial invasion, are stage IB cancers. Invasion is limited to a measured invasion of stroma of maximum depth 5mm, and no wider than 7mm ^(a)

- (a) The depth of invasion should not be more than 5mm taken from the base of the epithelium, either surface or glandular, from which it originates. Vascular space involvement, either venous or lymphatic, should not alter the staging.

Stage IA1	Measured invasion of stroma no greater than 3mm in depth and no wider than 7mm.
Stage IA2	Measured invasion of stroma greater than 3mm and no greater than 5mm in depth and no wider than 7mm.
Stage IB	Clinical lesions confined to the cervix or preclinical lesions greater than IA.
Stage IB1	Clinical lesions no greater than 4cm in size.
Stage IB2	Clinical lesions greater than 4cm in size.
Stage II	The carcinoma extends beyond the cervix, but has not extended on to the pelvic wall. The carcinoma involves the vagina, but not as far as the lower third.
Stage IIA	No obvious parametrial invasion.
Stage IIB	Obvious parametrial invasion.
Stage III	The carcinoma has extended to the pelvic wall. On rectal examination, there is no cancer-free space between the tumour and the pelvic wall. The tumour involves the lower third of the vagina. All cases with hydronephrosis or non-functioning kidney should be included, unless they are known to be due to other cause.
Stage IIIA	No extension to the pelvic wall but involvement of the lower third of the vagina.
Stage IIIB	Extension to pelvic wall or hydronephrosis or non-functioning kidney.

Stage IV The carcinoma has extended beyond the true pelvis or has clinically involved (biopsy proven) the mucosa of the bladder or rectum. A bullous edema, as such, does not permit a case to be allocated to Stage IV.

Stage IVA Spread of growth to adjacent organs.

Stage IVB Spread to distant organs.

Source: Gynecologic Cancer Committee, International Federation of Gynecologic Oncology, International Journal Gynecologic Cancer 1995; 5:319.

Notes about staging:

1. Where there is doubt concerning the stage to which the cancer should be allocated, the earlier stage is assigned.
2. After a clinical stage has been assigned and treatment has been initiated, the stage of the disease must not be changed as a result of subsequent findings by extended clinical staging (e.g. CT Scan, MRI) or surgery.
3. While optional studies cannot be used to alter the stage of the cancer according to FIGO Classification, they should be documented and may be used in planning treatment.
4. Likewise, surgical findings which reveal a more (or less) advanced disease cannot be used to change the assigned clinical stage.

5 Microinvasive cervical cancer – FIGO Stage IA

5.1 Diagnosis

The diagnosis of microinvasive carcinoma of the cervix must be based on an adequate single cone biopsy with clear resection margins. A meticulous and systematic pathological evaluation of the cone biopsy specimen is crucial, paying particular attention to depth of invasion, lateral involvement, lymphovascular space invasion and status of the resection margins.

5.2 Treatment

FIGO (1995) Stage IA1 (≤ 3 mm)

In the absence of lymphovascular invasion, this group of patients have negligible chance of pelvic nodal spread ($<1\%$).⁸⁻²¹ Pelvic lymphadenectomy can be dispensed with. Total hysterectomy with complete removal of the cervix is the treatment of choice for those who have completed their family. The ovaries may be conserved as they are almost never involved.

In those who desire to conserve their fertility, an adequate cone biopsy is considered sufficient treatment provided the resection margins are completely clear and there is no lymphovascular space invasion.²²⁻²⁵ These patients will need close follow up with cervical cytology and colposcopy particularly in the first few years.

In the presence of lymphovascular space invasion, the risk of nodal involvement is significantly increased (up to 8.2%).⁸⁻²¹ Treatment of the pelvic nodes by either surgery or radiotherapy needs to be considered.

B Intracavitary radiotherapy is the alternative treatment option, especially for patients who are unsuitable for surgery.²¹

Grade B, Level III

FIGO (1995) Stage IA2 (>3 - 5mm)

The treatment options include:

- modified radical hysterectomy +/- pelvic lymphadenectomy
- brachytherapy Radiotherapy +/- external beam pelvic radiotherapy

B The risk of pelvic lymph nodes involvement ranges from 4% - 10%.⁸⁻¹⁹ The treatment of pelvic lymph nodes is recommended, but its merits must be judged on a case-by-case basis.

Grade B, Level IIa

Microinvasive adenocarcinoma of cervix

The natural history of microinvasive adenocarcinoma is not as well understood as its squamous counterpart. In addition, there are practical difficulties in the measurement of the depth of invasion. Therefore, the therapeutic procedure of choice is controversial.³⁵⁻³⁸

B A modified radical hysterectomy with pelvic lymphadenectomy has been preferred. Recent evidence supports a more conservative procedure (simple hysterectomy or cone biopsy).³⁹

Grade B, Level IIb

When conservation of fertility is desired, a cone biopsy may be considered.^{38,40} The patient needs to understand the potential risk involved, as the number of women treated in this way is small in the reported literature.

The ovaries can be conserved as the risk of ovarian spread is negligible.⁴¹

The other stages of adenocarcinoma of the cervix are managed in the same manner as squamous cell carcinoma.⁴²

6 Early localised cervical cancer – FIGO Stage IBI - IIA

A The treatment options are:

- radical hysterectomy with bilateral pelvic lymphadenectomy
- radical pelvic radiotherapy (external-beam pelvic radiation + intra-cavitary applications)

For this group of patients, both treatments result in equivalent cure rates.⁴⁴

Grade A, Level Ib

The choice of treatment is dependent on several factors including: patient's preference; preservation of vaginal and ovarian functions; physiological and medical conditions; age and other factors.

A For patients treated by surgery and assessed to be at high risk of relapse, post-operative adjuvant therapy is indicated for patients with tumour involvement of : pelvic lymph node or resection margin or parametrial tissue. The types of adjuvant therapy employed include radiotherapy and concurrent platinum-based chemotherapy. The addition of chemotherapy to radiotherapy has been shown to improve both the overall and progression-free survival rates.^{45, 46}

Grade A, Level Ib

A Where the disease is confined to the cervix, with clear resection margins and uninvolved lymph nodes, post-operative pelvic radiotherapy may be given to patients deemed to be at a higher risk of relapse. The risk factors in this group are: deep stromal invasion; lympho-vascular space invasion; unfavourable cell type and size of lesion. The rate of local (pelvic) recurrence is reduced with additional radiotherapy, but survival benefit has not been clearly established.⁴⁵

Grade A, Level Ib

A Para-aortic irradiation may lead to long-term disease control for patients with small volume (<2cm) nodal disease below L3. However, side effects/complications of para-aortic radiation are greater in those with prior abdomino-pelvic surgery.⁴⁷⁻⁴⁹

Grade A, Level Ib

7 Early localised cervical cancer – Bulky tumours (>4cm)

The optimal treatment for bulky cervical cancer remains controversial. Local, regional and distant failures are more common than for less bulky diseases, whatever primary modality is chosen. The treatment options include:

1. **A** Radical pelvic radiotherapy and brachytherapy with concurrent Cisplatin-containing chemotherapy.^{50, 57}

Grade A, Level Ib

A The addition of extrafascial hysterectomy following radiation did not yield any survival advantage.⁵¹

Grade A, Level Ib

2. **A** Radical hysterectomy and bilateral pelvic lymphadenectomy.⁴⁴

Grade A, Level Ib

A In cases with deep stromal invasion or lympho-vascular space invasion, the addition of adjuvant pelvic radiotherapy after surgery increases local pelvic control.⁴⁵

Grade A, Level Ib

A In cases with positive lymph nodes, resection margins or parametrial tissue, adjuvant platinum-based chemoradiation is recommended.⁴⁶

Grade A, Level Ib

B The removal of macroscopically involved nodal disease may be beneficial.^{52, 53}

Grade B, Level III

8 Locally advanced cervical cancer – FIGO Stage IIB - IVA

The treatment of choice for these stages of disease is radiotherapy (external beam radiotherapy and brachytherapy) and concurrent platinum-based chemotherapy.⁵⁷⁻⁵⁹

The addition of concurrent weekly intravenous platinum-based chemotherapy, up to a total of 6 cycles, has been found to improve survival outcome in three randomised studies, in particular for patients without extra-pelvic nodal involvement.

A Concurrent chemotherapy should be given to a patient who has no contra-indication to the treatment (e.g. poor performance status; advanced age; inadequate bone marrow and renal function).

Grade A, Level Ia

B The resection of macroscopically enlarged lymph nodes may be beneficial.^{52, 53}

Grade B, Level III

B For patients with widespread metastatic cervical cancer, the main aim of treatment is palliation of symptoms. The treatment options are:

1. Systemic platinum-based chemotherapy and/or⁶³⁻⁷²
2. Local radiotherapy to symptomatic sites⁷³⁻⁷⁵ or
3. Best supportive care

Grade B, Level IIa

For patients with solitary metastasis (e.g. lymph node, lung, brain), consideration should be given to the following:

1. **B** Resection of metastasis⁷⁶

Grade B, Level IIa

2. Brain metastasis

- **A** Resection⁷⁷

Grade A, Level Ib

- **B** Radiosurgery⁷⁸

Grade B, Level IIb

10 Recurrent cancer

Treatment for patients with recurrent cervical cancer is dependent on previous treatment modality and exact anatomical site(s) of relapse:

B For patients with loco-regional relapse after previous radical surgery without adjuvant irradiation, pelvic radiotherapy⁷⁹⁻⁸³ or chemoradiation^{84, 85} is the treatment of choice.

Grade B, Level IIa

B Patients who relapsed after prior irradiation should be considered for pelvic exenteration⁸⁶⁻⁹¹ or radical hysterectomy⁹²⁻⁹⁶ if the disease is confined centrally in the pelvis.

Grade B, Level IIa

B Patients with disease relapse not confined centrally to the pelvis or at other sites deemed unsuitable for local modality treatment should be treated with palliative chemotherapy⁶³⁻⁷² or best supportive care.

Grade B, Level IIa

11 Special considerations

Ovarian conservation

B Ovarian conservation should be considered for young patients.⁹⁷

Grade B, Level IIa

Small cell neuroendocrine carcinoma⁹⁸⁻¹⁰⁶

Due to its propensity to metastasise, investigations for the spread of the disease should include a CT scan of the brain, thorax, abdomen (liver) and a radionuclide bone scan.

For early stages (FIGO Stages I - IIA), the treatment options are:

- Radical surgery with chemotherapy
- Pelvic radiotherapy with chemotherapy
- Radical surgery with adjuvant chemotherapy and pelvic radiotherapy

For locally advanced diseases (FIGO Stages IIB-IVA):

- Chemotherapy followed by pelvic radiotherapy

B For metastatic diseases (FIGO IVB):

- Chemotherapy is employed first. If the disease responds favourably to the chemotherapy, pelvic radiotherapy may follow to control the local disease.

Grade B, Level III

Hormone replacement therapy

B No clinical evidence is available to suggest that hormone replacement therapy should be withheld from patients with a history of cervical cancer.¹⁰⁷⁻¹¹¹

Grade B, Level III

Post-hysterectomy diagnosis of cervical cancer

If cancer of the cervix is diagnosed histologically after a simple hysterectomy, subsequent management should be determined by the stage of the disease, as follows:

1. For Stage IA1
No further treatment

2. **B** For Stages >IA1 with clear margins, the treatment options include:
 - Pelvic radiotherapy
 - Radical pelvic parametrectomy and pelvic lymphadenectomy

Grade B, Level III

Cervix cancer in pregnancy

The considerations for treatment of cervix cancer in pregnancy are complex, for both the patient and the foetus. Therefore, the treatment is highly individualised according to the stage of disease, maturity of the foetus and the desire of the patient.

12 Palliative medical care and hospice services

As far as possible, symptomatic incurable patients should be given access to palliative care by family physicians or hospice services.

Palliative services are available at:

- | | |
|-----------------------------|---|
| Cancer Centres/Hospitals | <ul style="list-style-type: none">• National Cancer Centre• KK Hospital Gynaecological Cancer Centre• NUH Cancer Centre/Alexandra Hospital• Tan Tock Seng Hospital |
| In-patient Hospices | <ul style="list-style-type: none">• Assisi Home & Hospice• Bright Vision Hospital• Dover Park Hospice• St Joseph's Home |
| Hospice Home-Care Programme | <ul style="list-style-type: none">• Assisi Home & Hospice• Hospice Care Association• Metta Hospice Care• Methodist Hospice Fellowship• Singapore Cancer Society |
| Day-Care Centres | <ul style="list-style-type: none">• Assisi Home and Hospice (for adults and children)• Hospice Care Association |

13 Clinical audit

- All patients treated for cervical cancer must have histopathological confirmation before commencement of treatment.
- The diagnosis of microinvasive disease of the cervix requires a single large cone biopsy with clear margins.
- All patients must be assigned a clinical stage based on recognised criteria and investigative procedures set out in the main guidelines.
- The reasons for deviation from these practice guidelines must be documented.

14 Recommendations for research

Recommendation¹¹²

1. Conduct population-based studies of quality of care and short- and long-term outcomes, with a special emphasis on health disparities
2. Conduct research on tumour biology and genetic/molecular imaging
3. Characterize the molecular features of gynaecologic cancers and identify the molecular pathways and surrogate biomarkers involved in gynaecologic cancers, including those relevant to HPV and its role in cervical carcinogenesis
4. Develop vaccines for both prevention and treatment of cervical cancer
5. Develop and test screening and prevention strategies for use in high-risk populations
6. Assess health disparities in cervical cancer incidence and outcomes
7. Conduct intervention research to decrease dysfunction and to improve fertility outcomes
8. Understand the mechanisms of effective combination therapies

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Stage IA

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Stage IB-IIA

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Special Considerations

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Recommendations for Research

112. National Cancer Institute – Report of the Gynaecologic Cancer Progress Review Group : Research Priorities for Cervical Cancer available from URL : <http://prg.nci.nih.gov/gyno/finalreport.html>.

Annex A Self-assessment (MCQs)

After reading the Clinical Practice Guidelines, you can claim one CME point under Category III (Self-Study) of the SMC Online CME System. Before you login to claim the CME point, we encourage you to evaluate whether you have mastered the key points in the Guidelines by completing this set of MCQs. This is an extension of the learning process and is not intended to “judge” your knowledge and is not compulsory. The answers can be found at the end of the questionnaire.

Instruction: Choose the best answer

1. In the diagnosis of microinvasive cervical cancer (FIGO Stage 1A)
 - A. Diagnosis is by the presence of a visible lesion on the cervix
 - B. Final diagnosis is by a colposcopic directed punch biopsy
 - C. A shallow loop electrosurgical excision is most appropriate
 - D. A single large cone biopsy is always indicated
 - E. Hysterectomy is the most appropriate way to diagnose and treat
2. The following are true of the management of microinvasive cervical cancer except
 - A. Radiotherapy may have a role
 - B. A single cone biopsy with clear resection margin is sufficient in women who have Stage 1A1 cancer and who desire to conserve fertility
 - C. Modified radical hysterectomy and pelvic node dissection is the standard treatment for Stage 1A1 cancer
 - D. Modified radical hysterectomy and pelvic node dissection is the treatment of choice for Stage 1A2 cancer
 - E. Ovaries can be conserved in the surgical treatment of these cancers
3. For a young patient with stage 1B1 cervical cancer, radical hysterectomy with bilateral lymphadenectomy is the best treatment because:
 - A. It is easier
 - B. The ovaries can be conserved
 - C. It gives better survival than radiation therapy
 - D. It lengthens the vagina
 - E. None of the above

4. When the presence of invasive cervical cancer is detected after simple hysterectomy, further treatment depends mainly upon:
 - A. Age of the patient
 - B. Histology of the tumour
 - C. Stage of the disease
 - D. Whether the ovaries were conserved
 - E. Size of the tumour

5. Patients who have parametrial involvement after radical hysterectomy for cervical cancer should have:
 - A. No further treatment
 - B. Chemotherapy only
 - C. Radiotherapy with concurrent chemotherapy
 - D. Traditional Chinese Medicine
 - E. Further surgery

6. Which of the following is true concerning adjuvant therapy in FIGO Stage 1B2 carcinoma of the cervix?
 - A. Following radical pelvic radiotherapy, adjuvant extrafascial hysterectomy will improve survival
 - B. Microscopic parametrial involvement is an indication for post-operative adjuvant chemoradiation
 - C. Bulky involved nodes at the time of surgery should be left alone if the patient is going to receive adjuvant radiation anyway
 - D. Following radical surgery, deep stromal invasion, lympho-vascular space involvement and large tumour diameter are indications for adjuvant systemic chemotherapy

7. The following are true for bulky (> 4 cm) localised cervical cancer (FIGO Stage IB2) except
 - A. Radical hysterectomy and bilateral pelvic lymphadenectomy is a treatment option
 - B. Radial pelvic radiotherapy and brachytherapy with concurrent cisplatin containing chemotherapy is a treatment option
 - C. The presence of lympho-vascular space invasion is an indication for adjuvant systemic chemotherapy

- D. Adjuvant platinum-based chemoradiation is recommended for positive surgical resection margins
8. A patient has been diagnosed as having Stage 3B squamous cell carcinoma of the cervix
- A. The treatment of choice is pelvic radiotherapy followed by 6 cycles of cisplatin chemotherapy
 - B. Pelvic radiotherapy with concurrent chemotherapy is associated with improved survival compared to pelvic radiotherapy alone
 - C. Resection of macroscopically enlarged pelvic lymph nodes is contraindicated
 - D. Poor performance status is an indication for concurrent chemoradiation
9. The main objective in treating a patient with disseminated carcinoma of cervix is:
- A. Eradication of tumour
 - B. Prolongation of survival
 - C. Reduction of tumour load
 - D. Symptomatic relief
10. The treatment of choice for a young patient who develops a central local pelvic recurrence after previous radical radiotherapy for carcinoma of the cervix is:
- A. Re-irradiation
 - B. Pelvic exenteration surgery
 - C. Chemotherapy
 - D. Symptomatic treatment

Answers

- | | | | |
|----|---|-----|---|
| 1. | D | 6. | B |
| 2. | C | 7. | C |
| 3. | B | 8. | B |
| 4. | C | 9. | D |
| 5. | C | 10. | B |

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Cervical Cancer



Ministry
of Health

NMRC
National Medical
Research Council

National Committee
on Cancer Care

Executive summary of recommendations

Details of recommendations can be found in the main text at the pages indicated.

Screening

B To reduce the incidence and mortality rate of cervix cancer, effective screening and preventive strategy must be actively pursued, in addition to early detection of disease and effective therapy. (pg 5)

Grade B, Level IIa

Stage IA

B Total hysterectomy is the treatment of choice for microinvasive cervical cancer in patients who have completed their family. In selected patients, fertility-sparing surgery may be considered. (pg 11)

Grade B, Level III

Stage IB-IIA

A Current evidence indicates that both radical surgery and pelvic radiotherapy results in equivalent cure rates for early localised cervical cancer. (pg 13)

Grade A, Level Ib

A The addition of post-operative treatment using a combination of chemotherapy and radiotherapy has been shown to improve survival outcome for patients with tumour involvement of pelvic lymph nodes, resection margin and parametrial tissue. (pg 13)

Grade A, Level Ib

The optimal treatment for bulky (>4cm) cervical cancer remains controversial.

Stage IIB-IVA

A The treatment of choice for locally advanced cervical cancer is concurrent chemoradiation. (pg 16)

Grade A, Level Ia

Metastatic cancer

B The main aim of treatment for patients with metastatic cancer is palliation of symptoms. (pg 17)

Grade B, Level IIa

Recurrent cancer

B The treatment employed for patients with recurrent cervical cancer is dependent on their previous treatment modality and the exact anatomical site of relapse. (pg 18)

Grade B, Level IIa

Ovarian conservation

B Ovarian conservation should be considered for young patients. (pg 19)

Grade B, Level IIa

Hormone replacement therapy

B There is no clinical evidence that Hormone Replacement Therapy should be withheld from patients with a history of cervical cancer. (pg 19)

Grade B, Level IIa

Diagnosis

- A. The diagnosis of cervical cancer must be based on histopathology.
- B. Early diagnosis of cervical cancer can be extremely challenging because of 3 factors:
 - i. The frequently asymptomatic nature of early disease
 - ii. The origin of some tumours from within the endocervical canal or beneath the epithelium of the ectocervix, making visualisation on speculum examination impossible
 - iii. The significant false-negative rate for Pap smears, even in women having regular screening

- C. Any obvious growth or ulcerative lesion should have a biopsy. An unhealthy looking cervix should be further evaluated even if the Pap smear has been normal.
- D. A single large cone biopsy with clear margins is needed to evaluate micro-invasive disease of the cervix.

Staging procedures allowed by FIGO

Physical Examination	Palpation for lymph nodes Examination of vagina Bimanual rectovaginal examination (under anaesthesia recommended)	
Radiological Studies	Chest X-ray Skeletal X-ray Intravenous Urogram Barium Enema	
Procedures	Colposcopy Biopsy Cone Biopsy of Cervix Cystoscopy	Proctoscopy Hysteroscopy Endocervical curettage

Classification & staging of cervical cancer - FIGO (1995) staging

- Stage O Primary tumour cannot be assessed. No evidence of primary tumour. Carcinoma in-situ.
- Stage I Cervical carcinoma is strictly confined to the uterus (extension to corpus should be disregarded).
 - Stage IA Invasive cancer identified only microscopically. All gross lesions, even with superficial invasion, are stage IB cancers. Invasion is limited to measured stromal invasion with a maximum depth of 5mm and no wider than 7mm.^(a)

^(a) The depth of invasion should not be more than 5mm taken from the base of the epithelium, either surface or glandular, from which it originates. Vascular space involvement, either venous or lymphatic, should not alter the staging.

- Stage IA1 Measured invasion of stroma no greater than 3mm in depth and no wider than 7mm.
- Stage IA2 Measured invasion of stroma greater than 3mm and no greater than 5mm in depth and no wider than 7mm.
- Stage IB Clinical lesions confined to the cervix or preclinical lesions greater than IA.
- Stage IB1 Clinical lesions no greater than 4cm in size.
- Stage IB2 Clinical lesions greater than 4cm in size.
- Stage II The carcinoma extends beyond the cervix, but has not extended on to the pelvic wall. The carcinoma involves the vagina, but not as far as the lower third.
- Stage IIA No obvious parametrial invasion.
- Stage IIB Obvious parametrial invasion.
- Stage III The carcinoma has extended on to pelvic wall. On rectal examination, there is no cancer-free space between the tumour and the pelvic wall. The tumour involves the lower third of the vagina. All cases with hydronephrosis or non-functioning kidney should be included, unless they are known to be due to other cause.
- Stage IIIA No extension on to the pelvic wall but involvement of the lower third of the vagina.
- Stage IIIB Extension on to pelvic wall or hydronephrosis or non-functioning kidney.
- 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
- Stage IVA Spread of growth to adjacent organs.
- Stage IVB Spread to distant organs.

Source: Gynecologic Cancer Committee, International Federation of Gynecologic Oncology, International Journal Gynaecologic Cancer 1995; 5:319.