RLAG'S FOR MANAGEMENT OF CERVICAL CANCER

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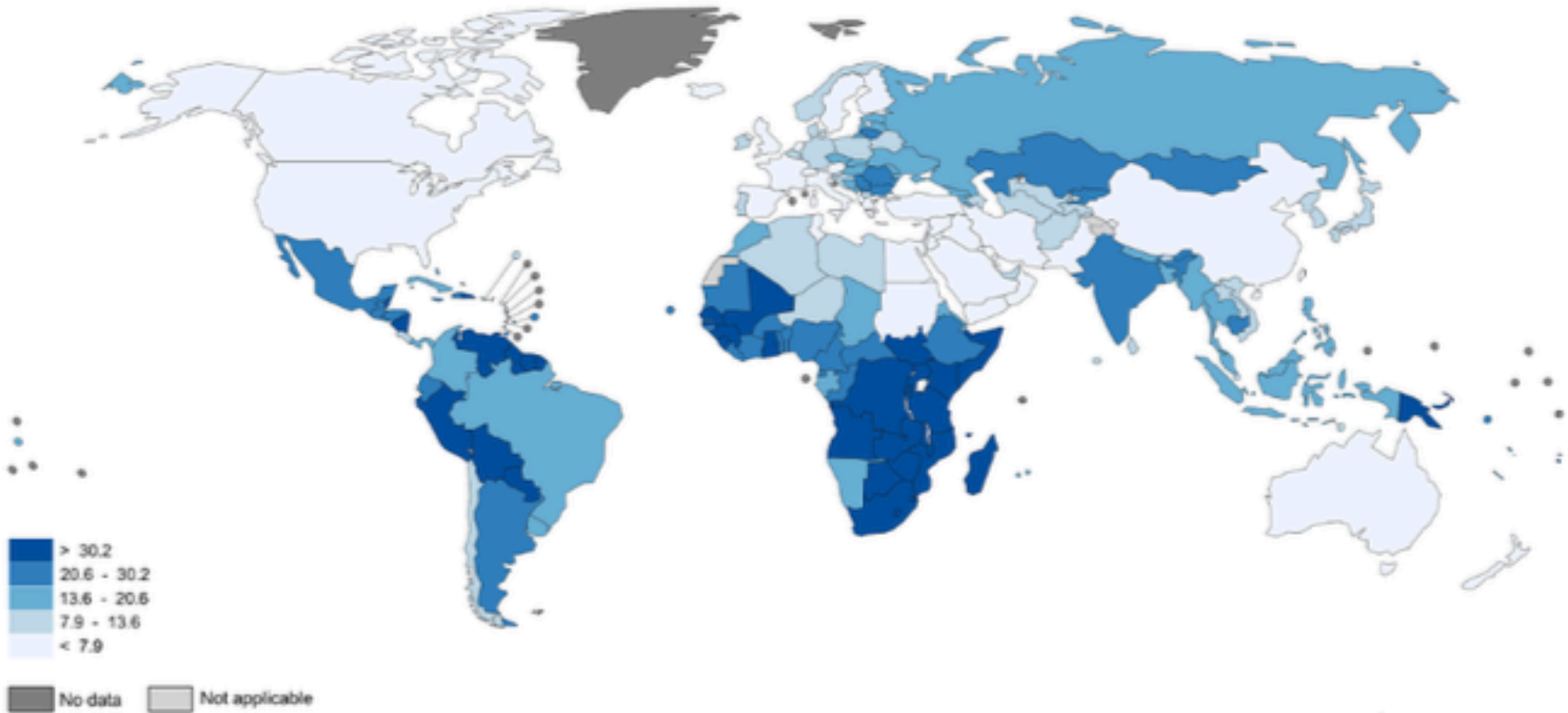
BACKGROUND

- Cervical Cancer: preventable and treatable.
- WHO Cervical Cancer Elimination Initiative.
- Important disparity between countries: different outcomes.
- The role of HPV in this disease and the rationale in prevention.
- Lack of different health providers in some settings.

Estimated Cervical Cancer Incidence Worldwide in 2012



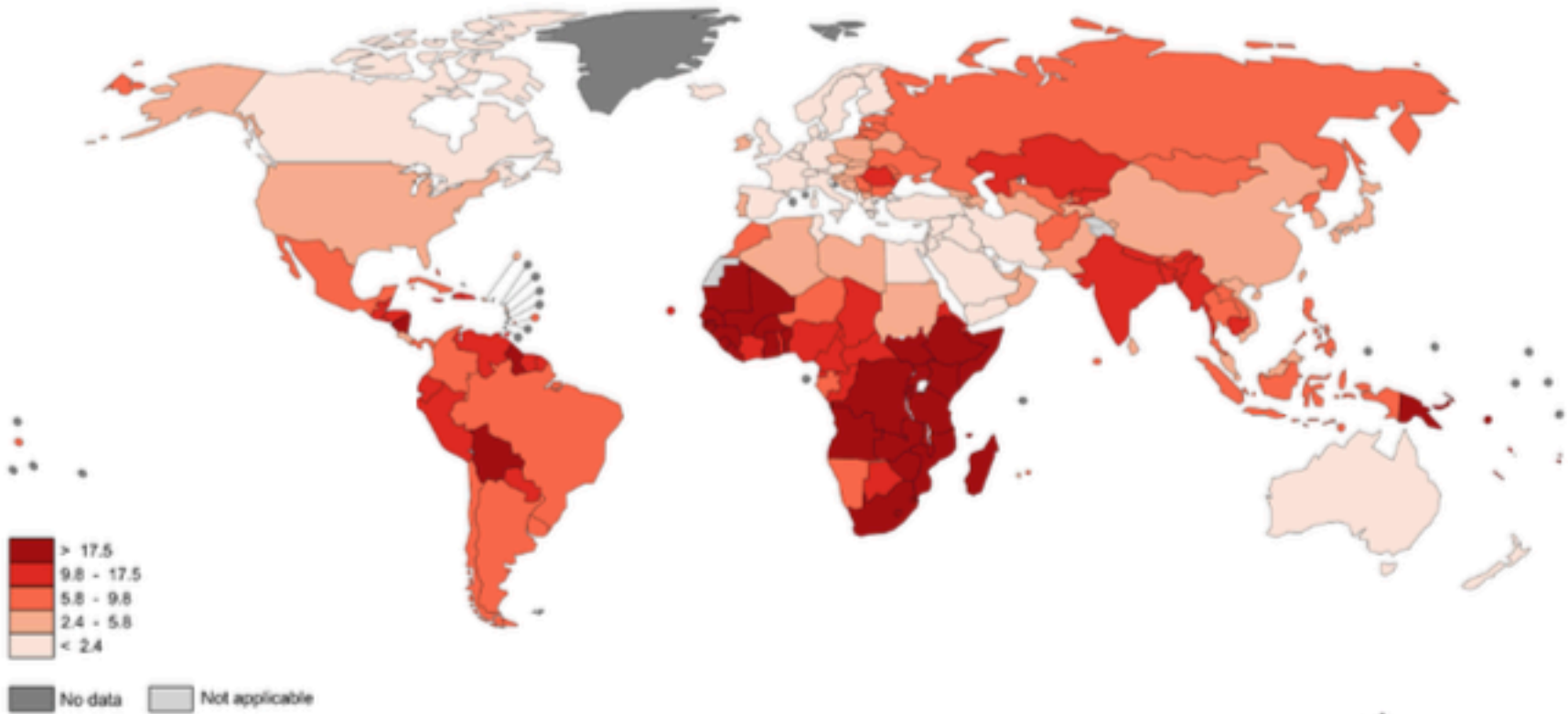
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Data source: GLOBOCAN 2012
Map production: IARC
World Health Organization

World Health Organization

Estimated age-standardised rates (World) per 100,000

Estimated Cervical Cancer Mortality Worldwide in 2012

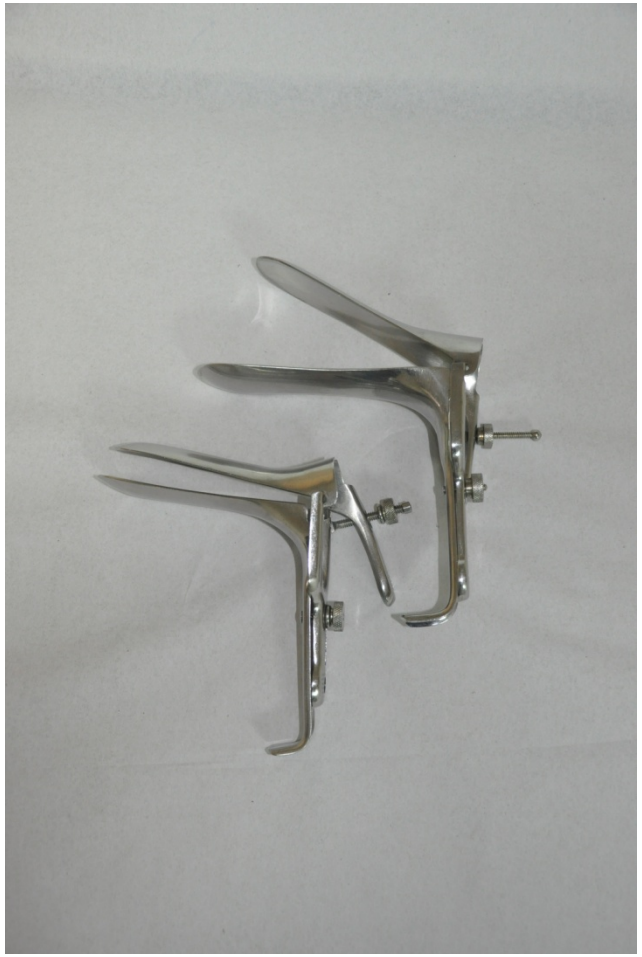


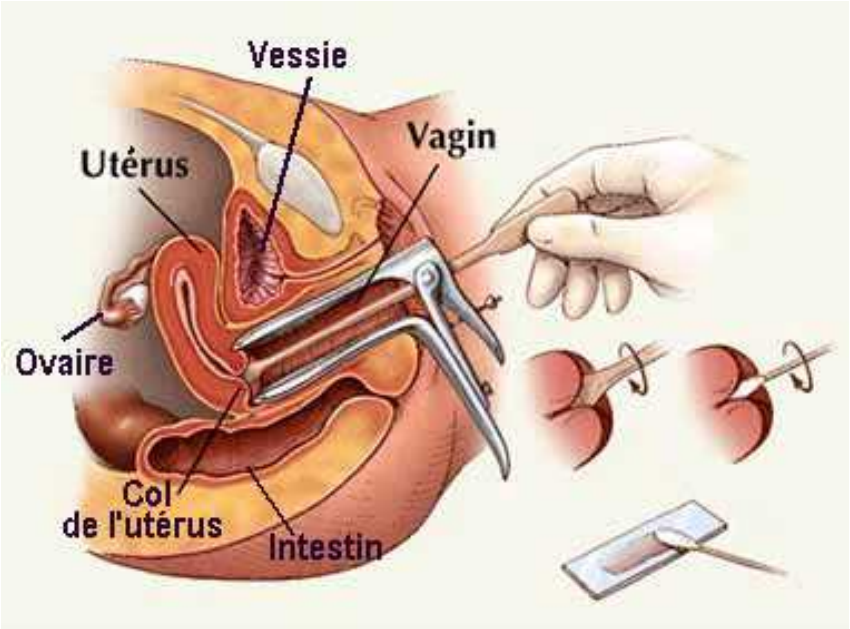
Data source: GLOBOCAN 2012
Map production: IARC
World Health Organization

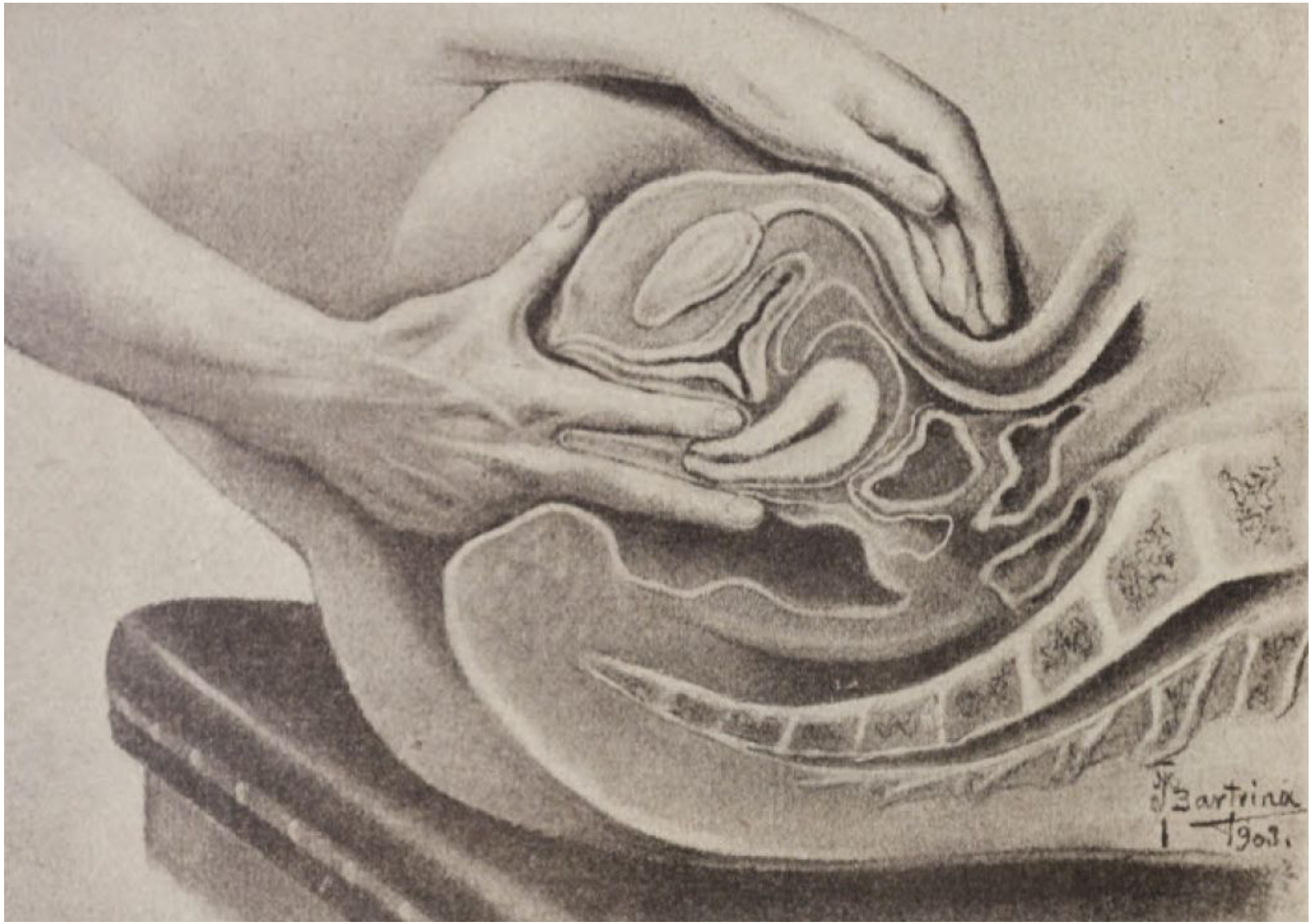
World Health Organization

Estimated age-standardised rates (World) per 100,000

PHYSICAL EXAMINATION






J. Bartrina
1903.

STAGING SYSTEM FIGO 2018 (1)

STAGE	DESCRIPTION
I	**Carcinoma is strictly confined to the cervix (extension to the uterine corpus should be disregarded).**
IA	Invasive Carcinoma that can only be diagnosed by microscopy, with maximum depth of invasion less than 5 mm.
IA1	• Depth of Invasion <3 mm.
IA2	• Depth of invasion between 3 – 5 mm.
IB	Invasive Carcinoma confined to the uterine cervix with a depth of invasion greater than 5 mm.
IB1	• Invasive carcinoma greater than 5 mm in depth and less than 2 cm in greatest dimension.
IB2	• Invasive carcinoma between 2 – 4 cm in greatest dimension.
IB3	• Invasive carcinoma greater than 4 cm in greatest dimension.
II	**The carcinoma extends 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 greater dimension.
IIA2	• Invasive carcinoma >4 cm in greater dimension.
IIB	With parametrial involvement but not up to the pelvic side wall.

STAGING SYSTEM FIGO 2018 (2)

STAGE	DESCRIPTION
III	**The carcinoma invades the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or no functioning kidney and/or involves pelvic and/or para – aortic lymph nodes.**
IIIA	Involvement of the lower third of the vagina, without parametrial invasion.
IIIB	Extension to the pelvic wall and/or causes hydronephrosis or no functioning kidney (unless to be known to another cause).
IIIC IIIC1 IIIC2	Involvement of pelvic and/or para aortic lymph nodes, irrespective of tumor size and extension. • Pelvic lymph node metastasis only. • Para – Aortic lymph node involvement.
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 to adjacent pelvic organs.
IVB	• Spread to distant organs.

TREATMENT OPTIONS

- **SURGICAL:**
  - ✓ Fertility Sparing Options (Cone Biopsy/Radical Trachelectomy +/- Nodes).
  - ✓ Simple/Radical Hysterectomy +/- Nodes.
  - ✓ Pelvic Exenteration (Recurrent Disease).

- **RADIATION:**
  - ✓ External Beam Radiation (Cobalt/Linear Accelerator).
  - ✓ Brachytherapy.

- **SYSTEMIC TREATMENT:**
  - ✓ Chemotherapy (Concurrent, Neoadjuvant or Adjuvant).
  - ✓ Molecular Targeted Therapy.

- **PALLIATION/SUPPORTIVE ONCOLOGY.**

TREATMENT OPTIONS: CHALLENGES

- **SURGICAL:**
  - ✓ Anatomic Landmarks.
  - ✓ Physician's Expertise.
  - ✓ Facilities (Equipment/ICU/Blood Bank).

- **RADIATION:**
  - ✓ Availability.
  - ✓ Human Resources.

- **SYSTEMIC TREATMENT:**
  - ✓ Availability.
  - ✓ Cost (MTT).

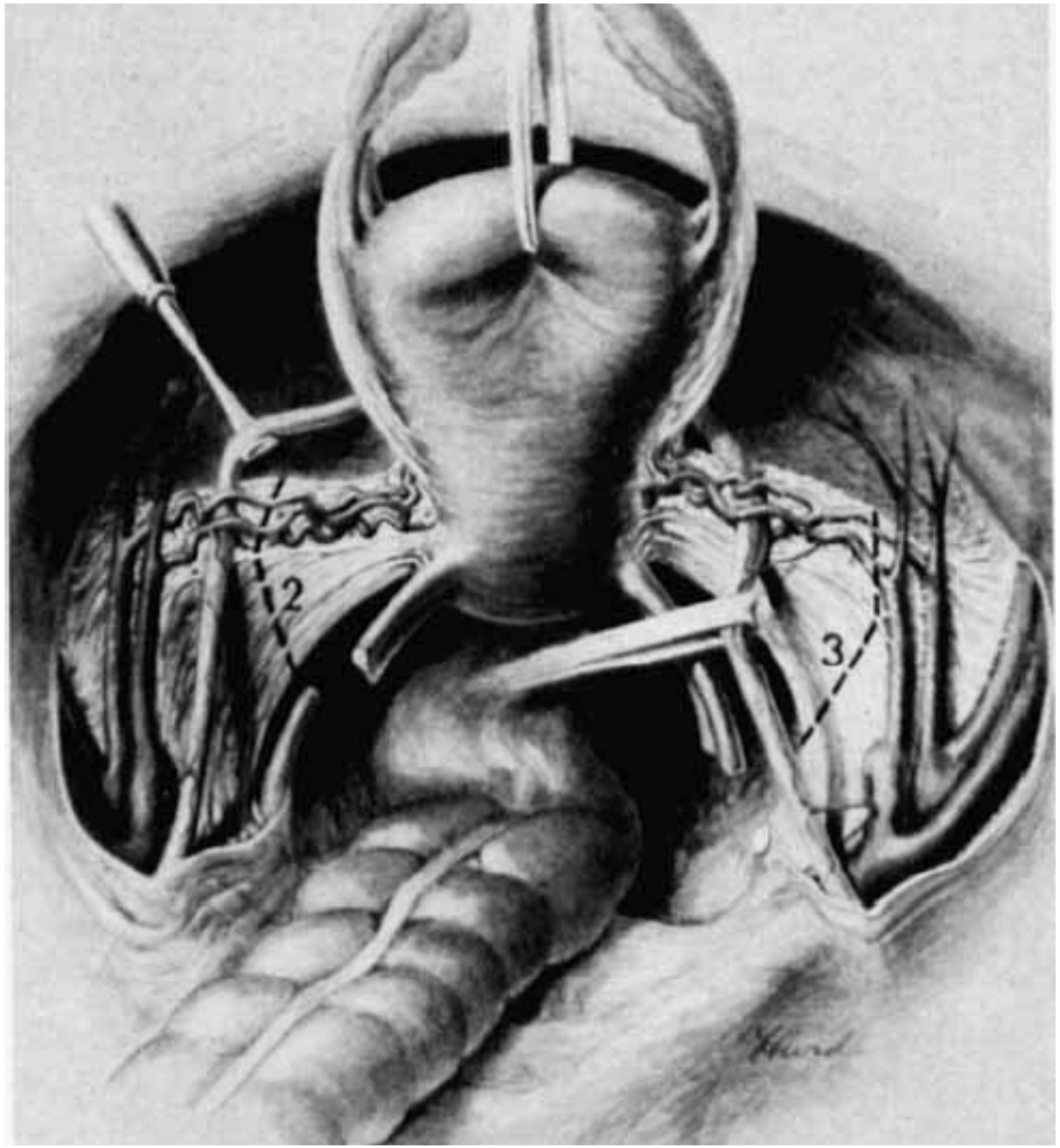
- **PALLIATION/SUPPORTIVE ONCOLOGY:**
  - ✓ None (Not Really).

Surgical Aspects of Cervical Carcinoma

PHILIP J. DiSAIA, MD*

The surgical therapy of cancer of the cervix has historically been a mainstay of treatment for this malignancy. This manuscript reviews the historical development of surgical therapy for cervix cancer and discusses the role of this modality in modern medicine. Stage I and Stage IIA disease is adequately treated with a radical hysterectomy. Morbidity and mortality in the last two decades has been reduced to a minimum. The extent of the radical surgical procedure called radical hysterectomy has been tailored to the extent of the disease by the use of modern knowledge of spread patterns.

Cancer **48:548–559, 1981.**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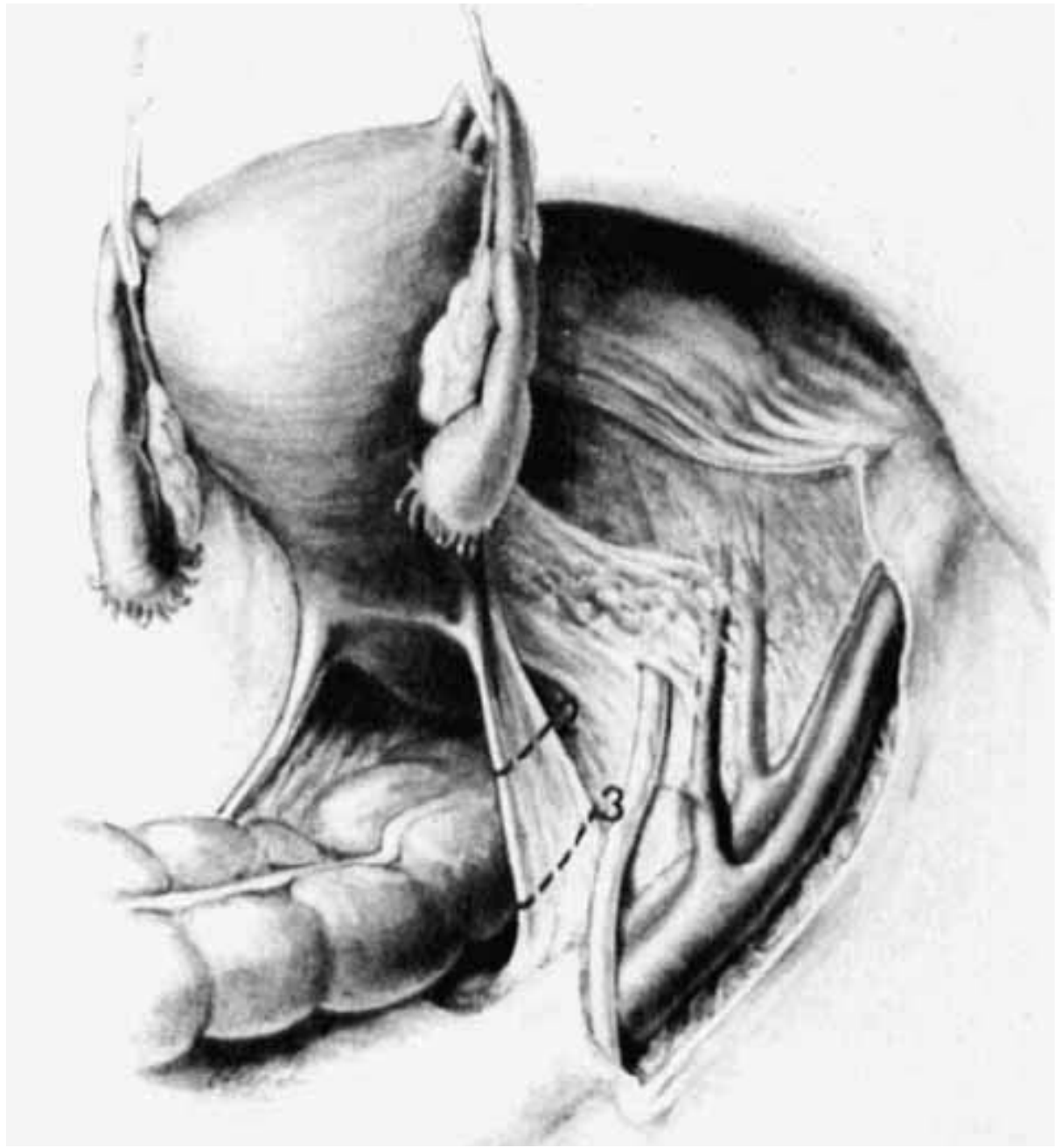
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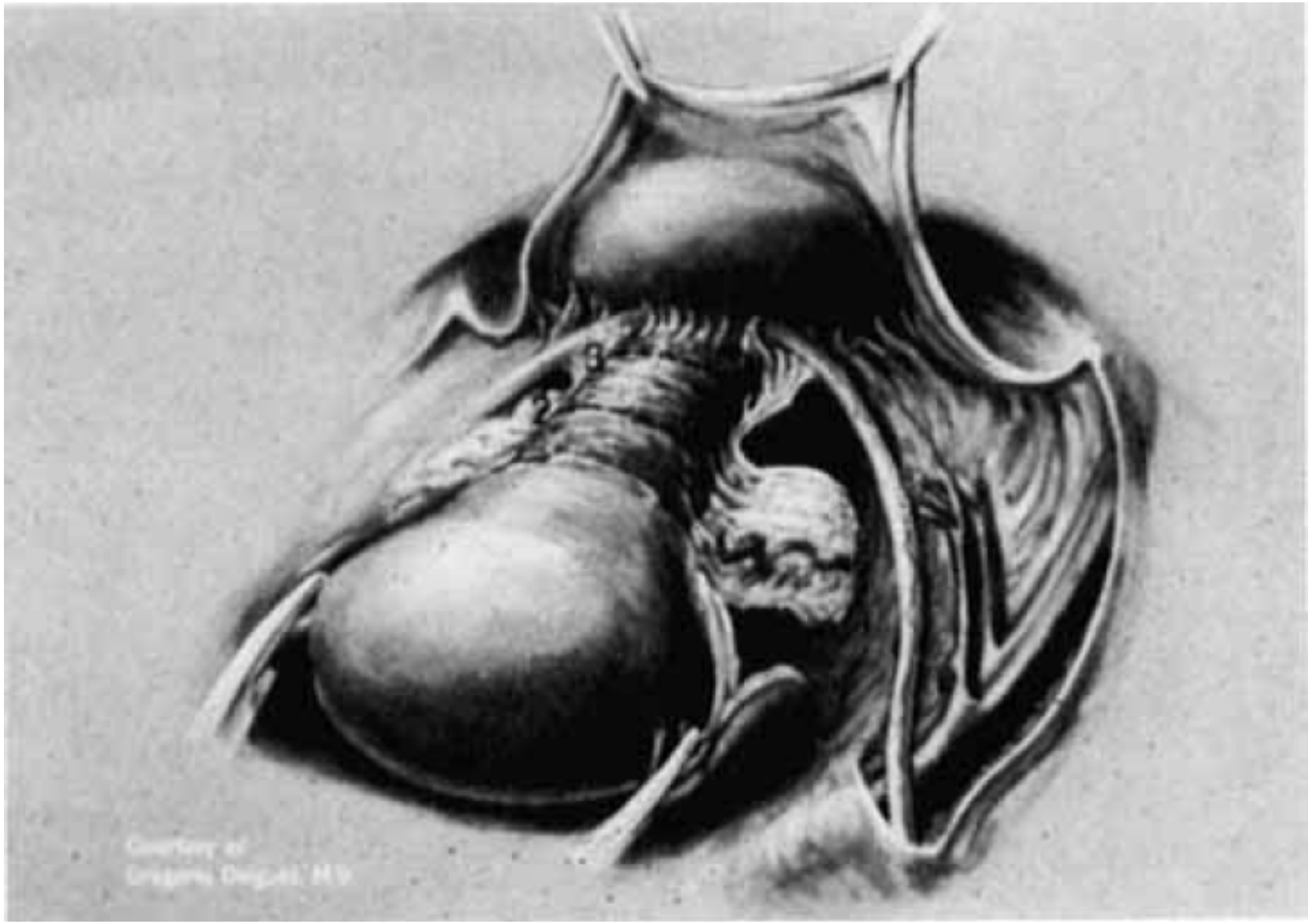

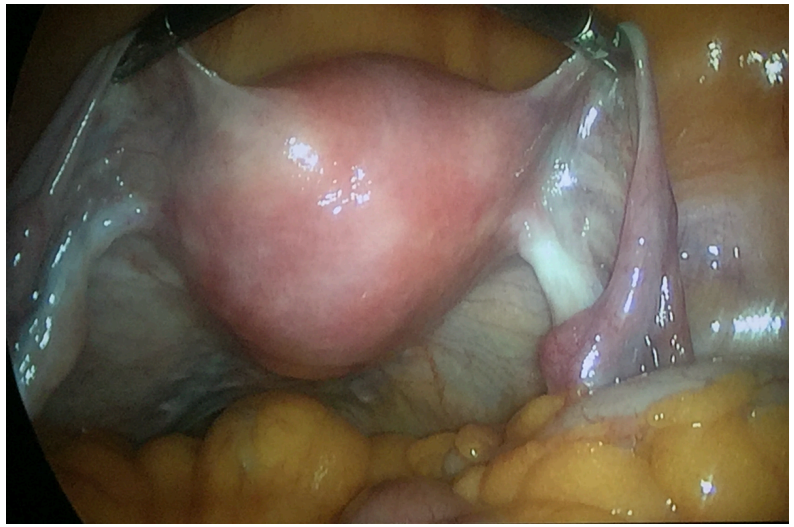

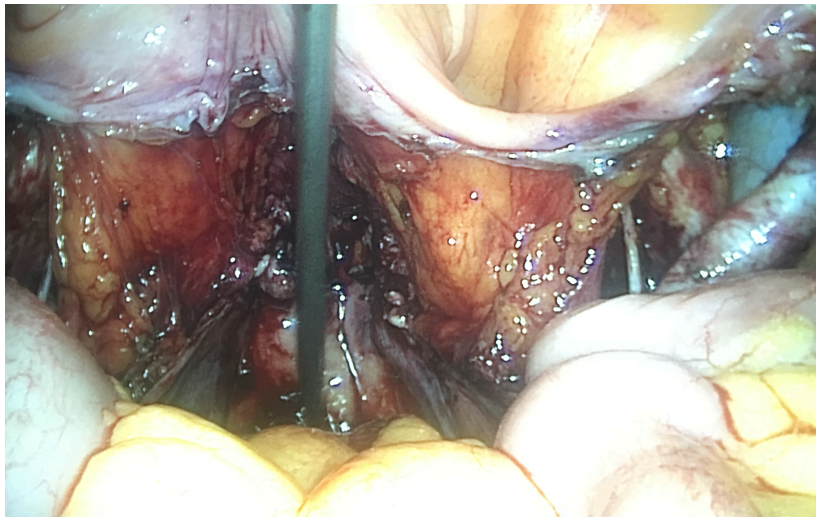

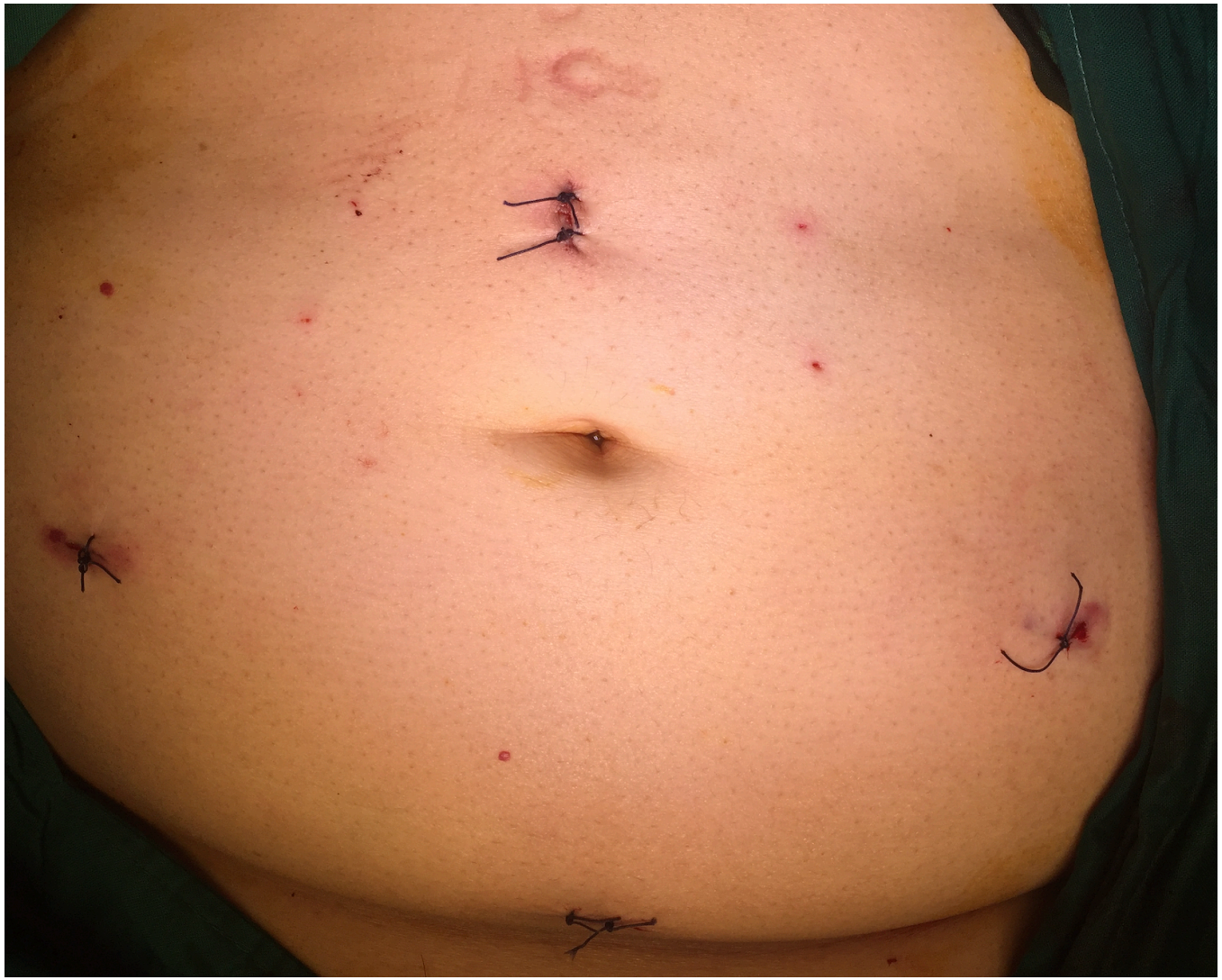

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Minimally Invasive versus Abdominal Radical Hysterectomy for Cervical Cancer

Pedro T. Ramirez, M.D., Michael Frumovitz, M.D., Rene Pareja, M.D., Aldo Lopez, M.D., Marcelo Vieira, M.D., Reitan Ribeiro, M.D., Alessandro Buda, M.D., Xiaojian Yan, M.D., Yao Shuzhong, M.D., Naven Chetty, M.D., David Isla, M.D., Mariano Tamura, M.D., Tao Zhu, M.D., Kristy P. Robledo, Ph.D., Val Gebski, M.Stat., Rebecca Asher, M.Sc., Vanessa Behan, B.S.N., James L. Nicklin, M.D., Robert L. Coleman, M.D., and Andreas Obermair, M.D.

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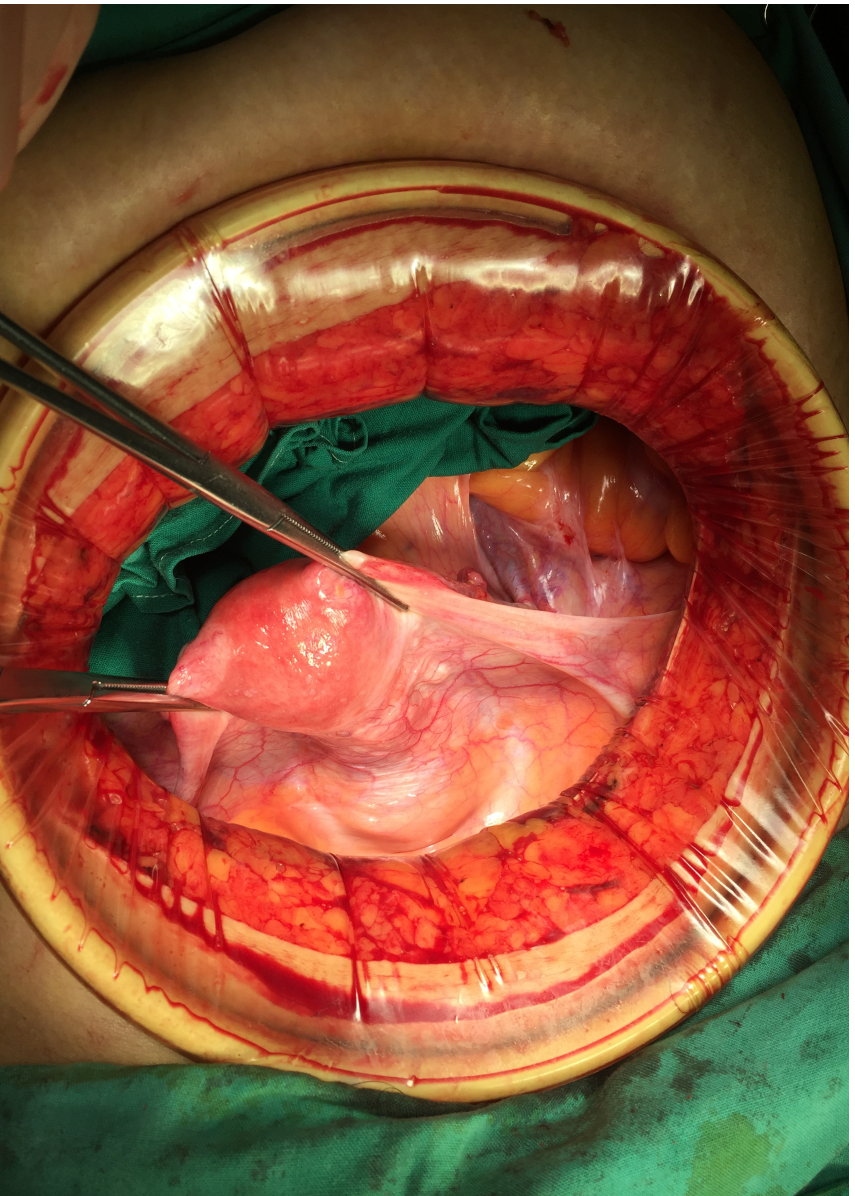
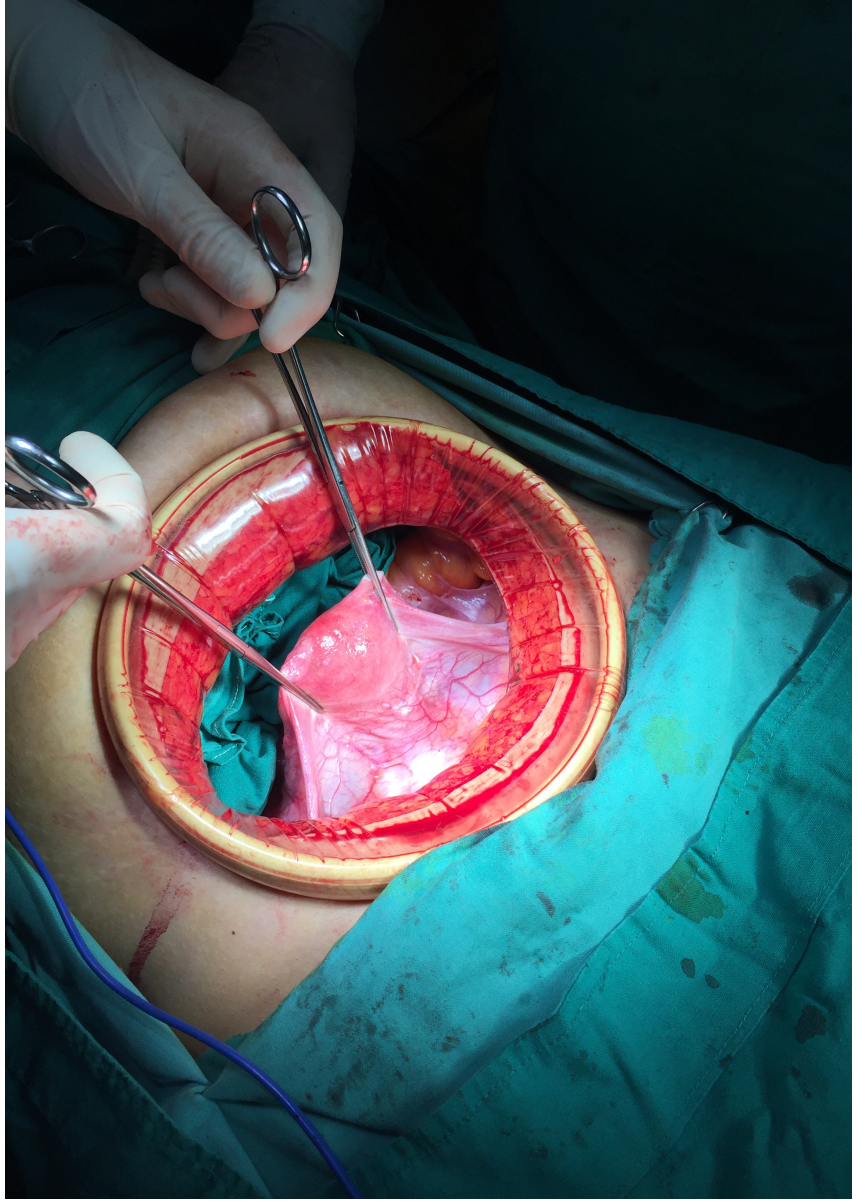
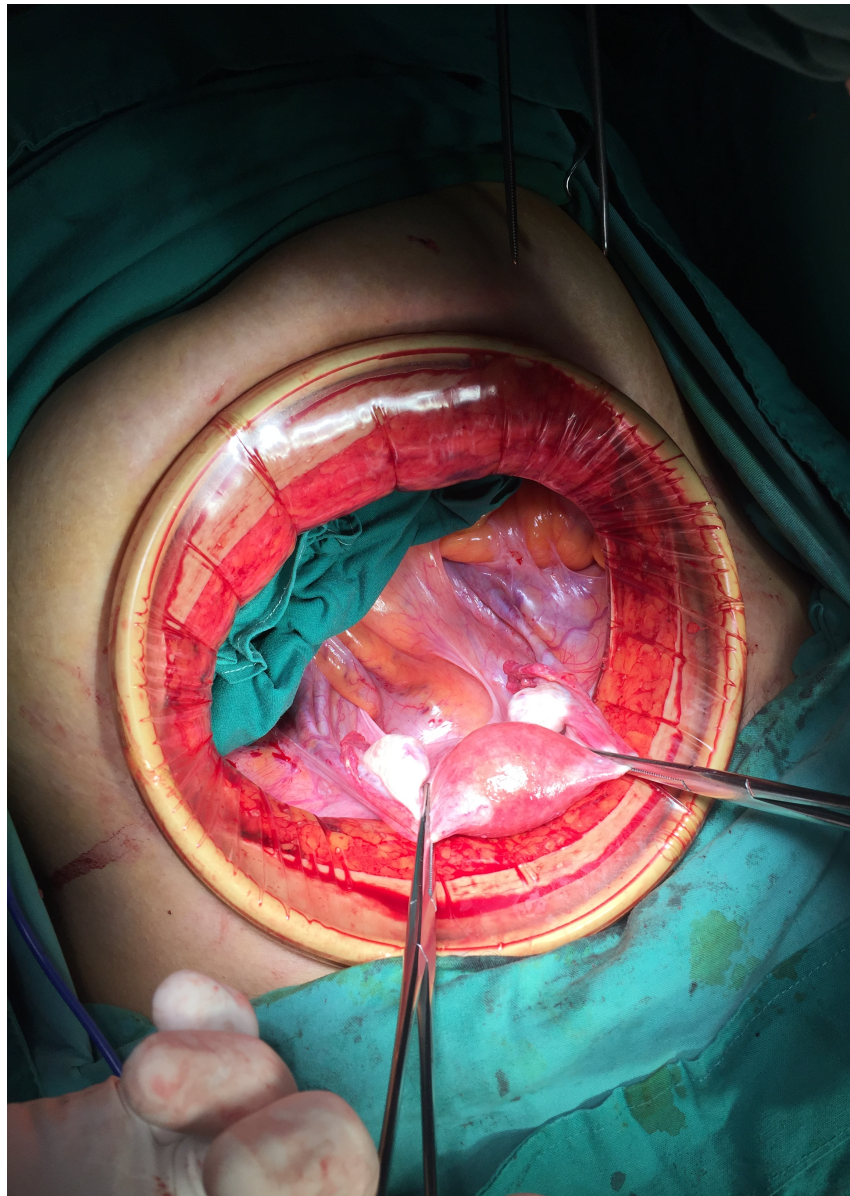
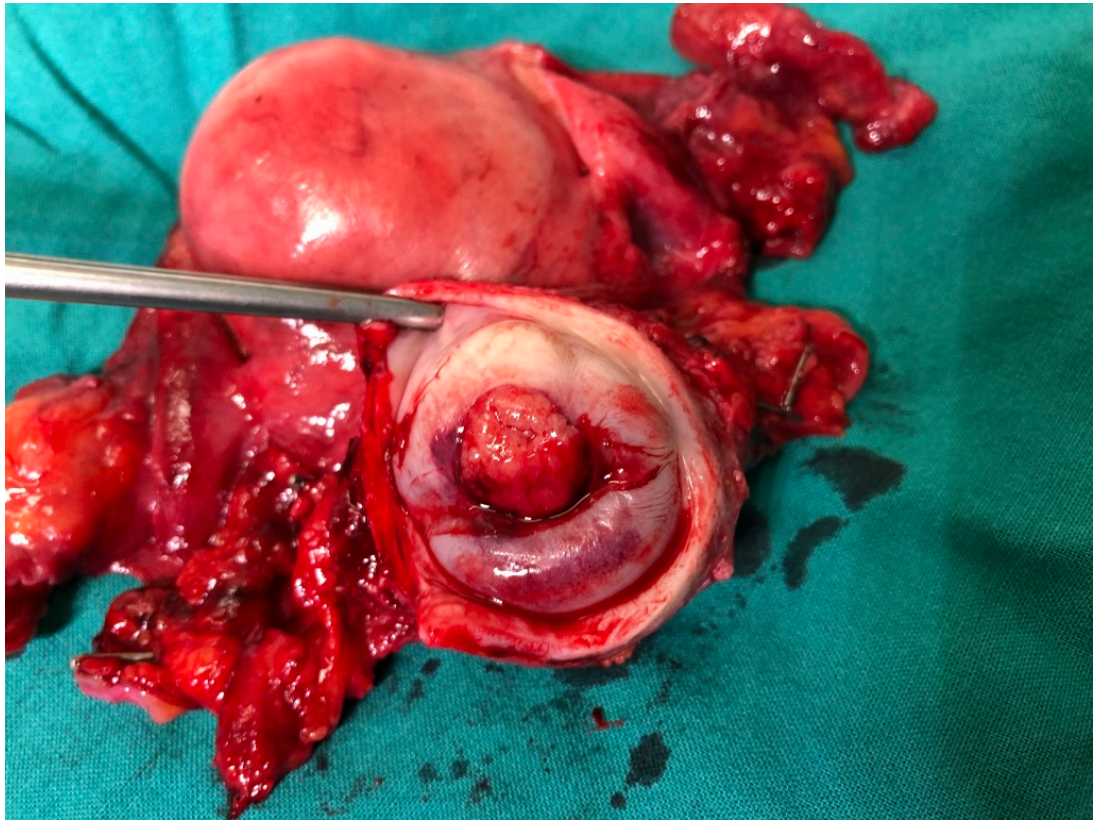
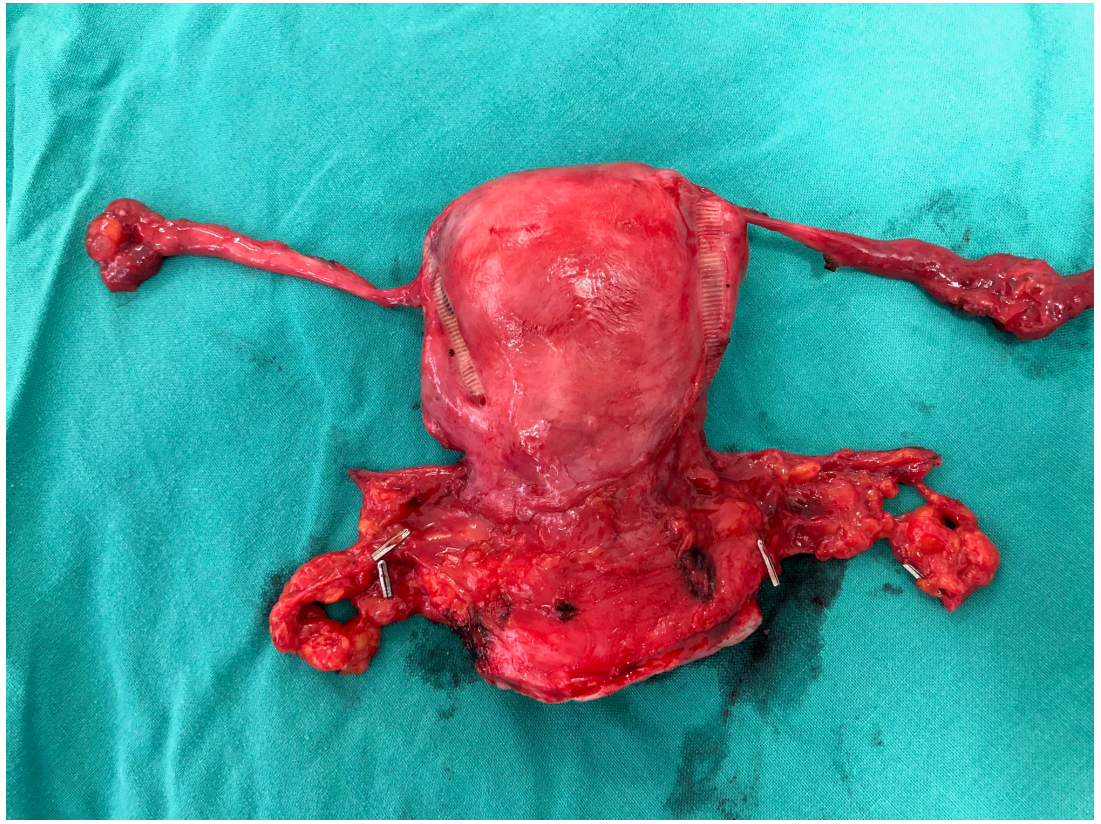
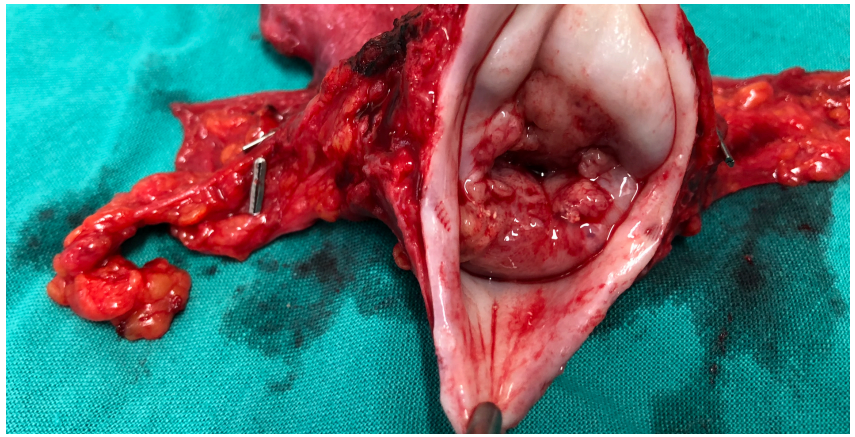


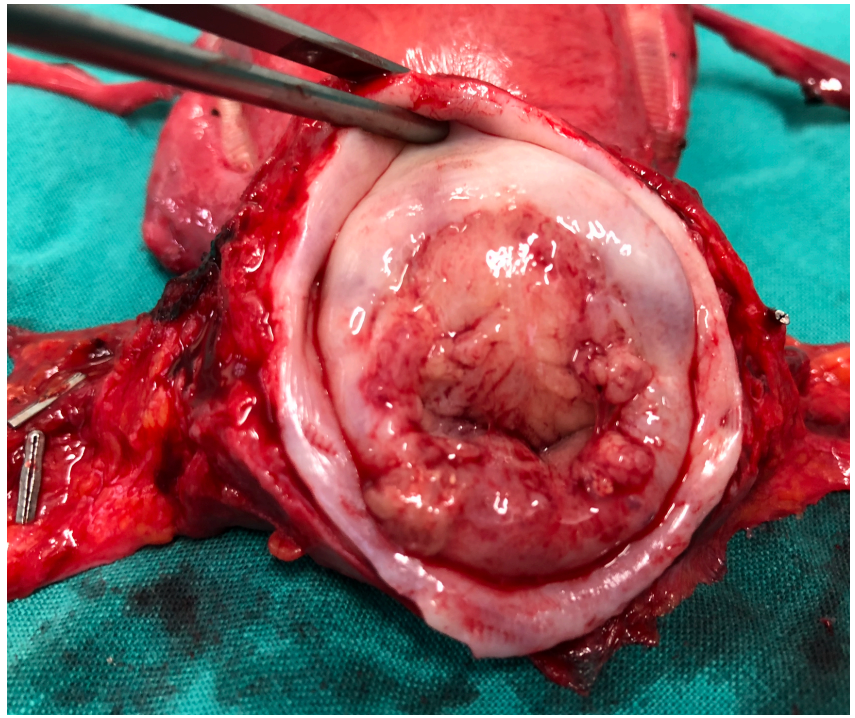


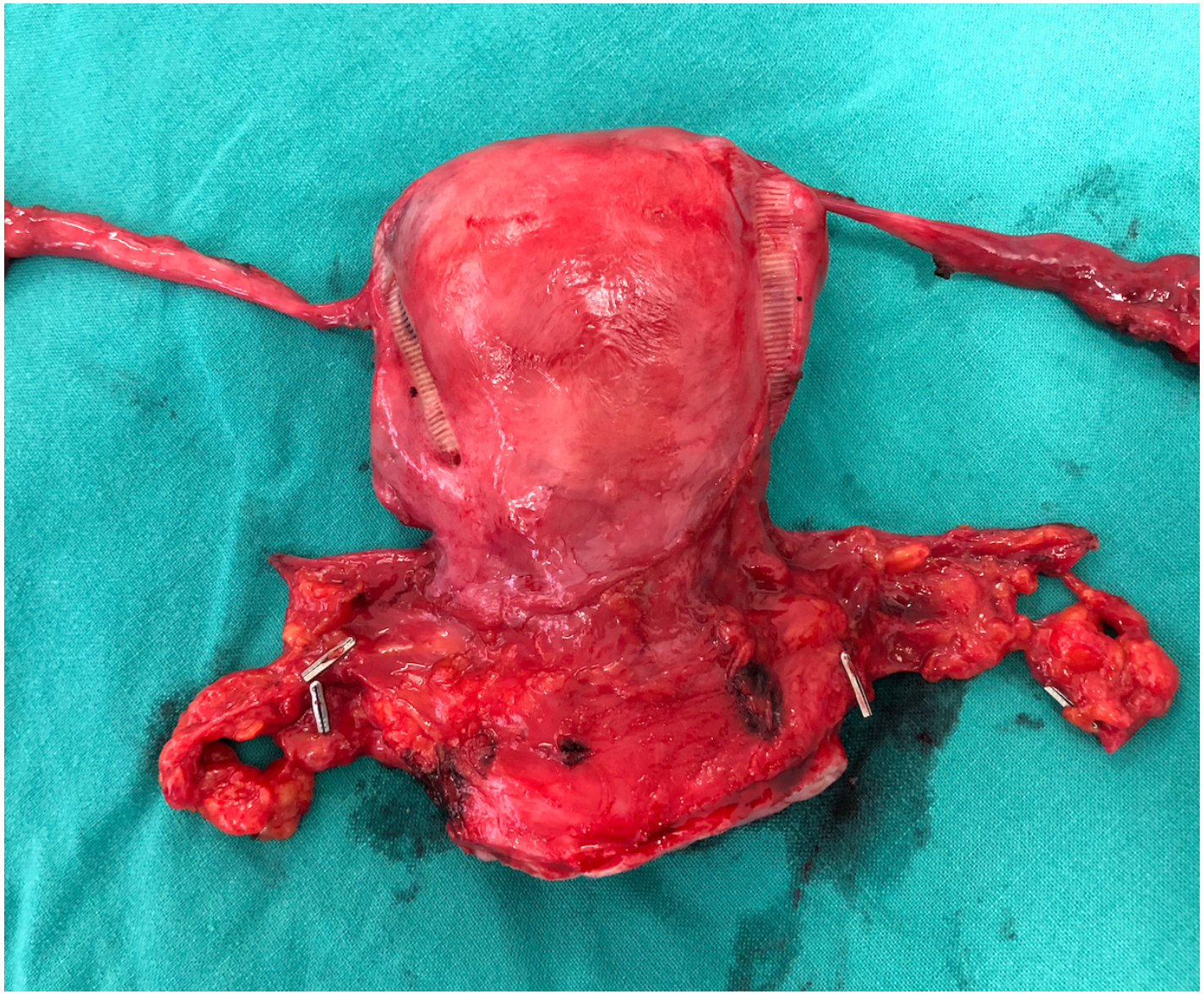


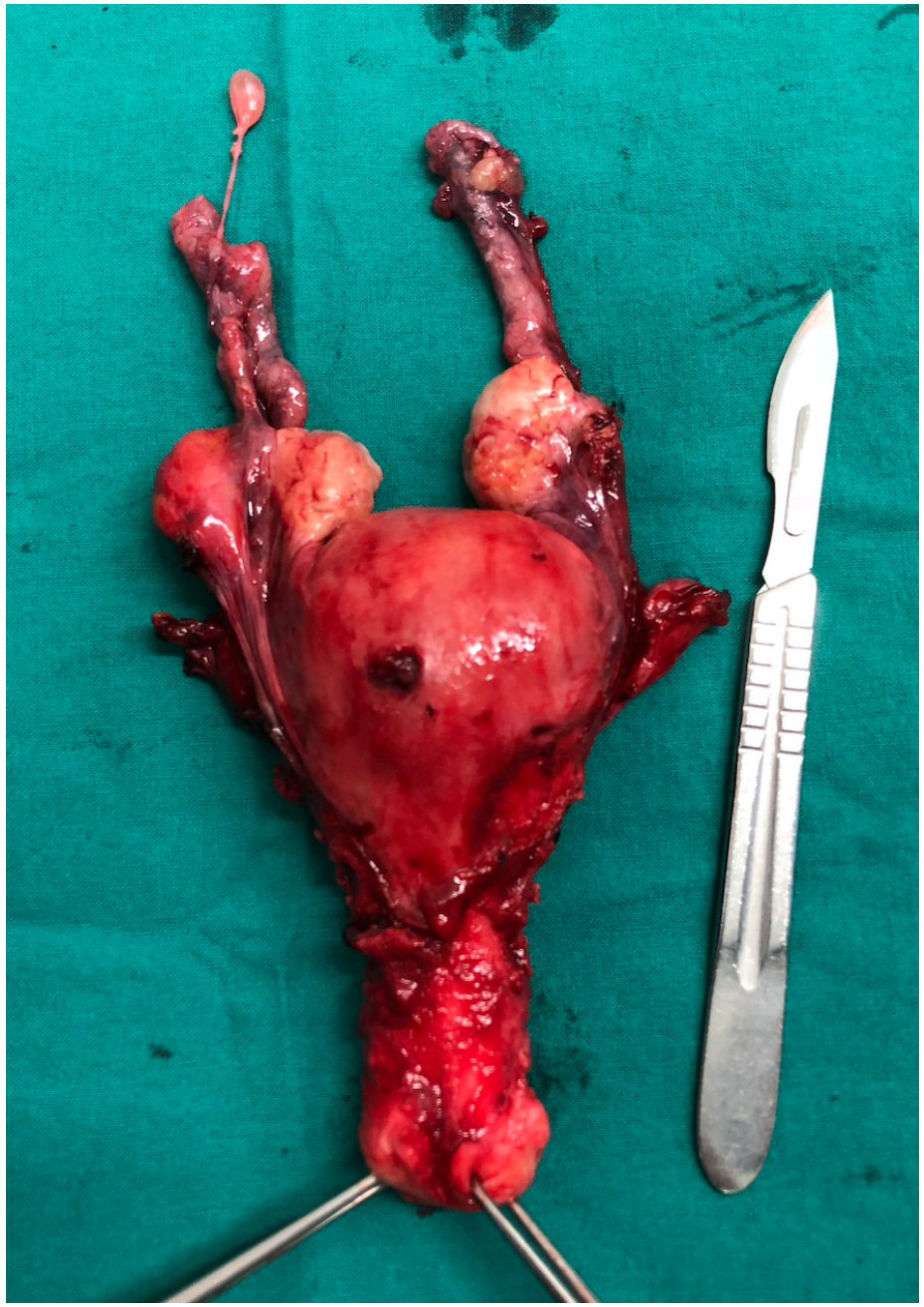


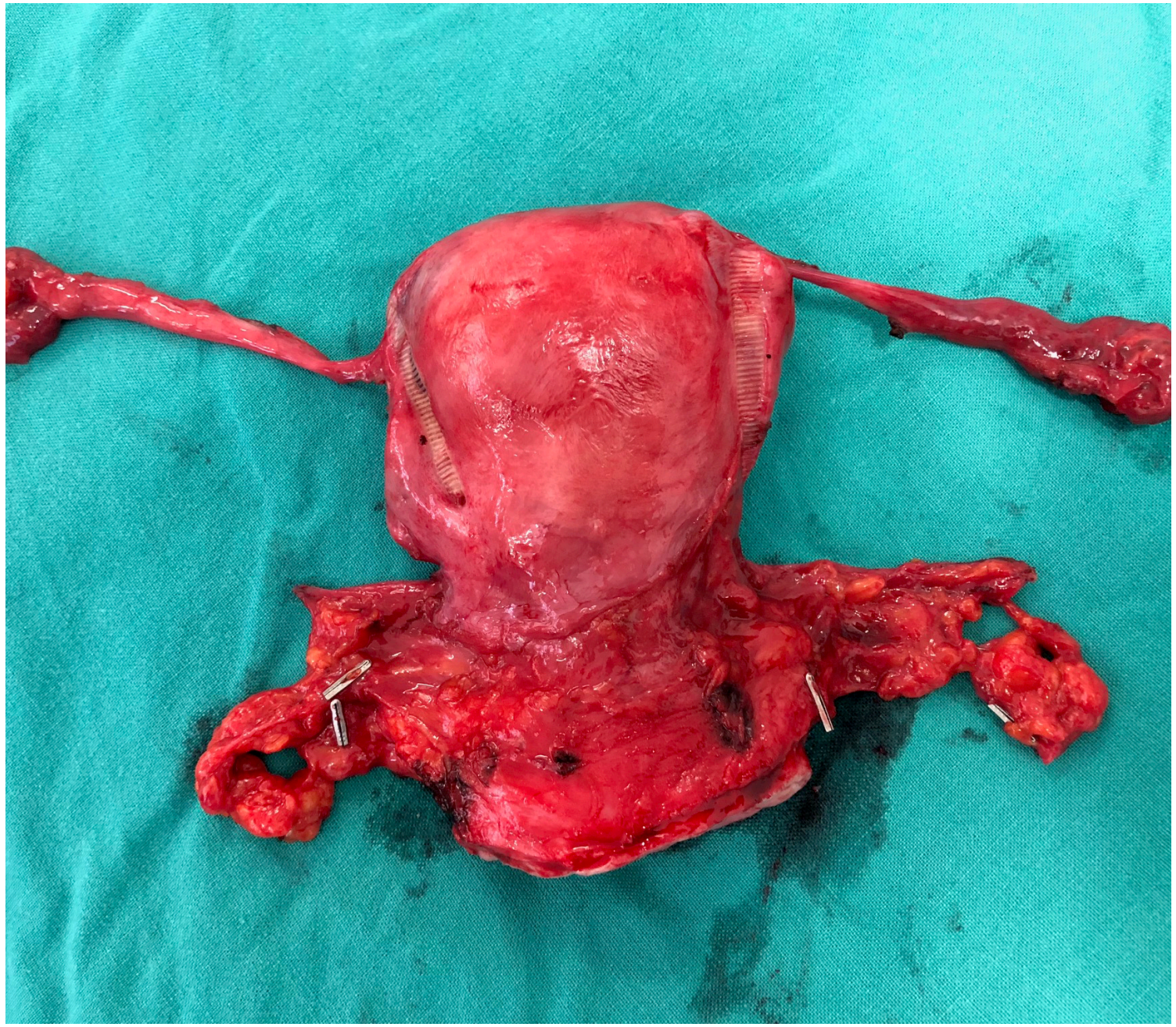


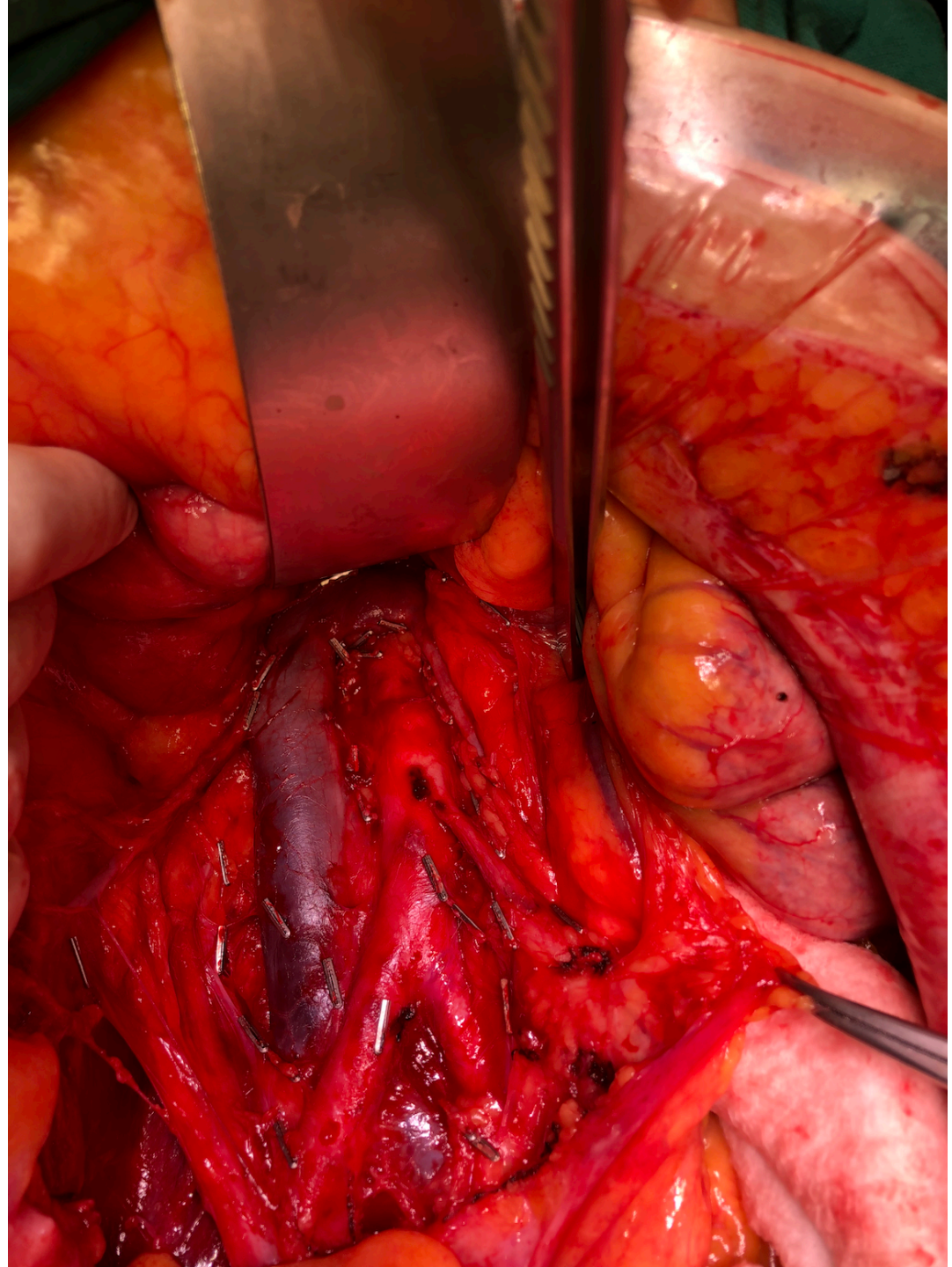




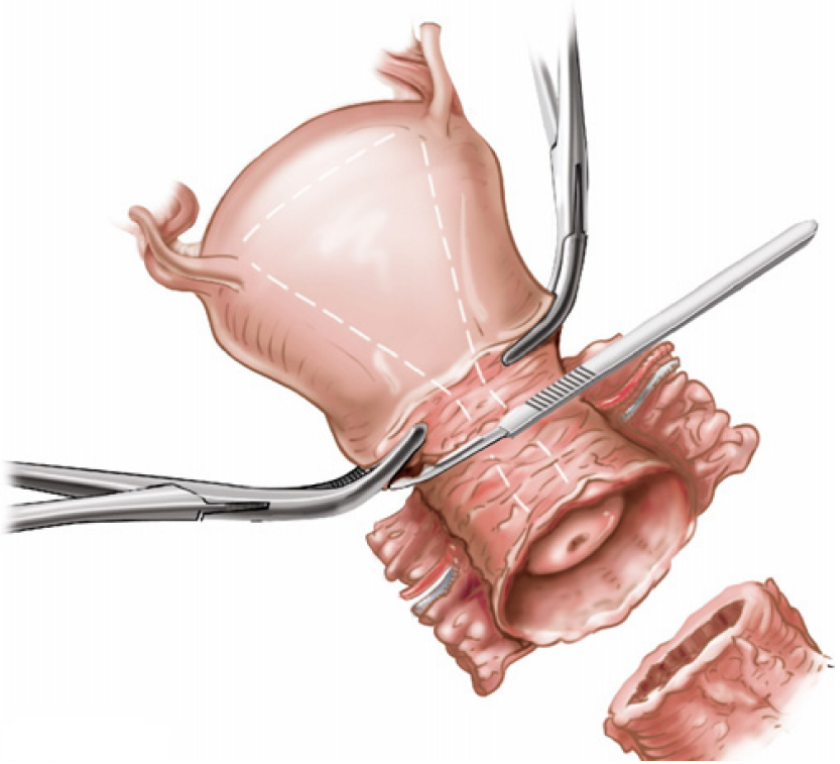


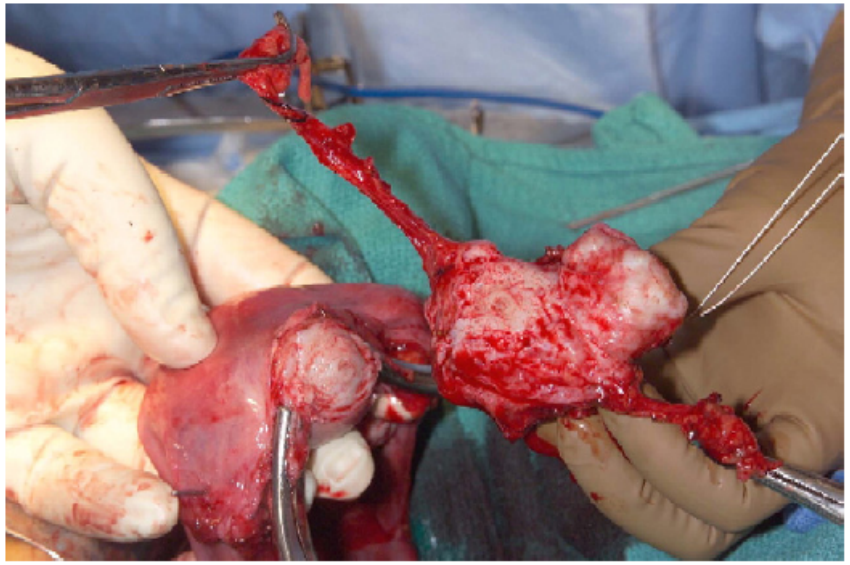






RADICAL TRACHELECTOMY





original report

Global Access to Radiotherapy Services: Have We Made Progress During the Past Decade?

Mei Ling Yap
Eduardo Zubizarreta
Freddie Bray
Jacques Ferlay
Michael Barton

Mei Ling Yap and **Michael Barton**, Ingham Institute for Applied Medical Research, University of New South Wales Australia, Liverpool, New South Wales, Australia;

abstract

Purpose The global incidence of cancer is rising, particularly in low- and middle-income countries. Radiotherapy is an important cancer treatment in the curative and palliative setting. We aimed to estimate the global demand for and supply of radiotherapy megavoltage machines (MVMs) and assess the changes in supply and demand during the past decade.

Materials and Methods Cancer incidences for 27 cancer types in 184 countries were extracted from the International Agency for Research on Cancer GLOBOCAN database. The Collaboration for Cancer Outcomes Research and Evaluation radiotherapy utilization rate (RTU) model was used to estimate the number of patients in each country with an indication for radiotherapy for each cancer type and estimate the demand for MVMs. The radiotherapy supply data were accessed from Directory of Radiotherapy Centres database maintained by the International Atomic Energy Agency.

Results RTU varied by country, from 32% in Mongolia to 59% in Comoros. The average optimal world RTU was 50%, equating to 7 million people in 2012 who would benefit from radiotherapy. There remains a deficit of more than 7,000 machines worldwide. During the past decade, the gap between radiotherapy demand and supply has widened in low-income countries.

Conclusion RTU varies significantly between countries. Approximately half of all patients with cancer worldwide should receive radiotherapy; however, more than 2 million people are unable to access it because of a lack of MVMs. Low- and middle-income countries are particularly disadvantaged by this deficit.

J Glob Oncol 2.

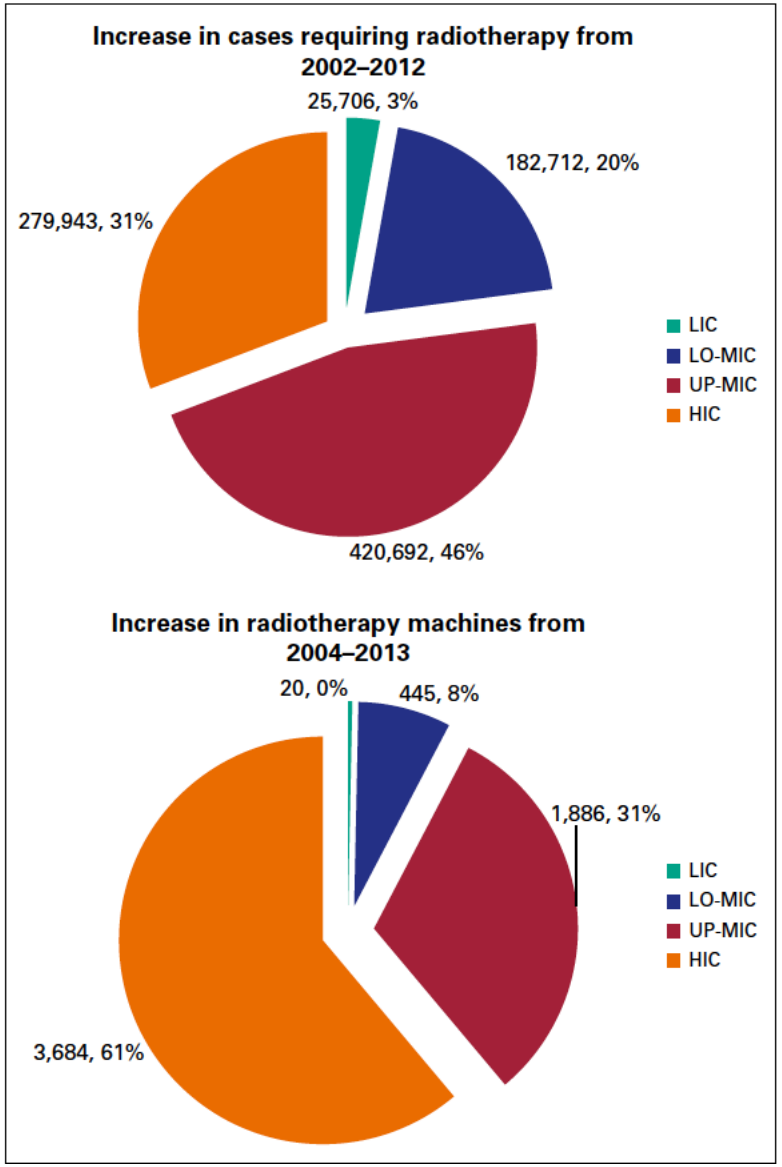
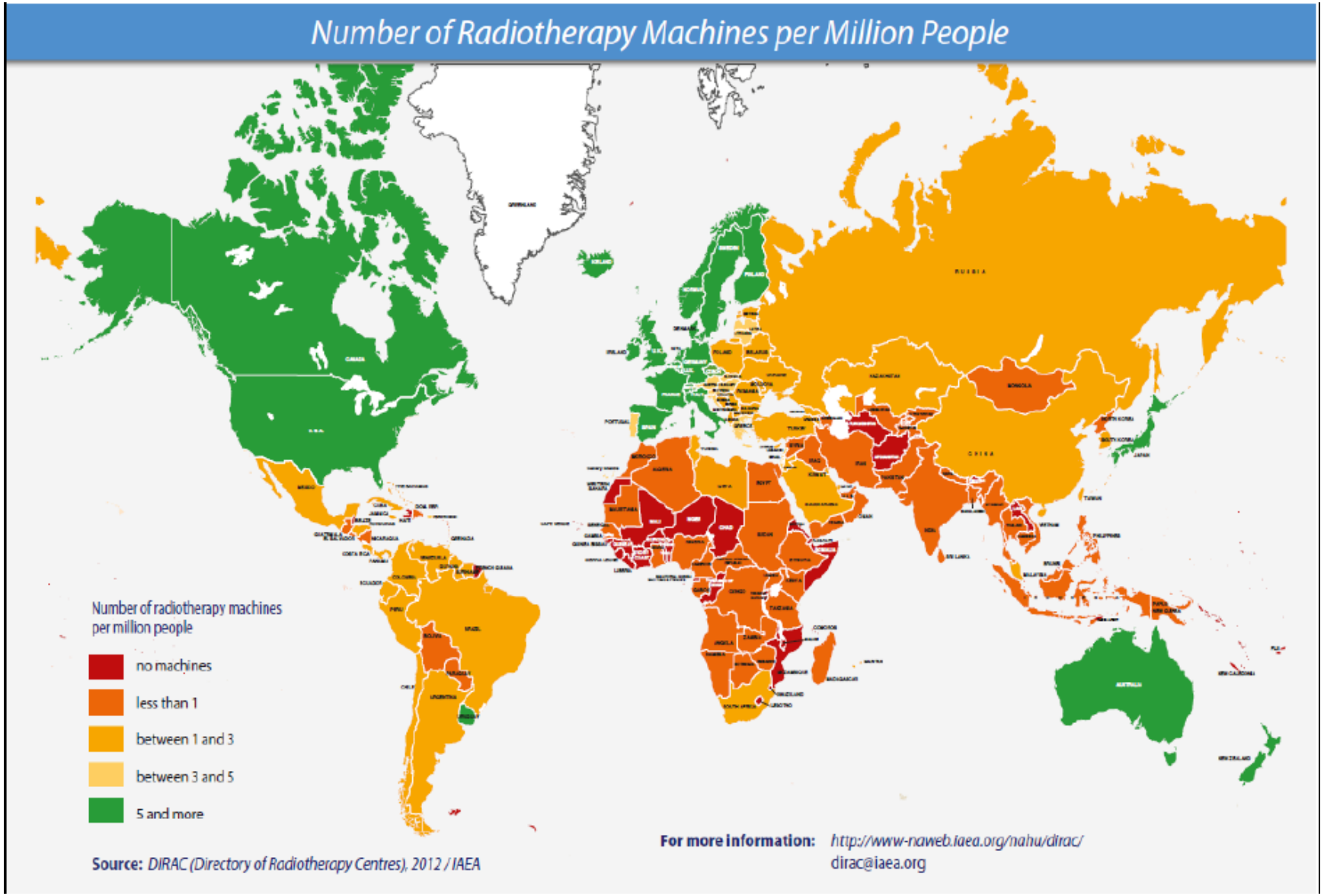
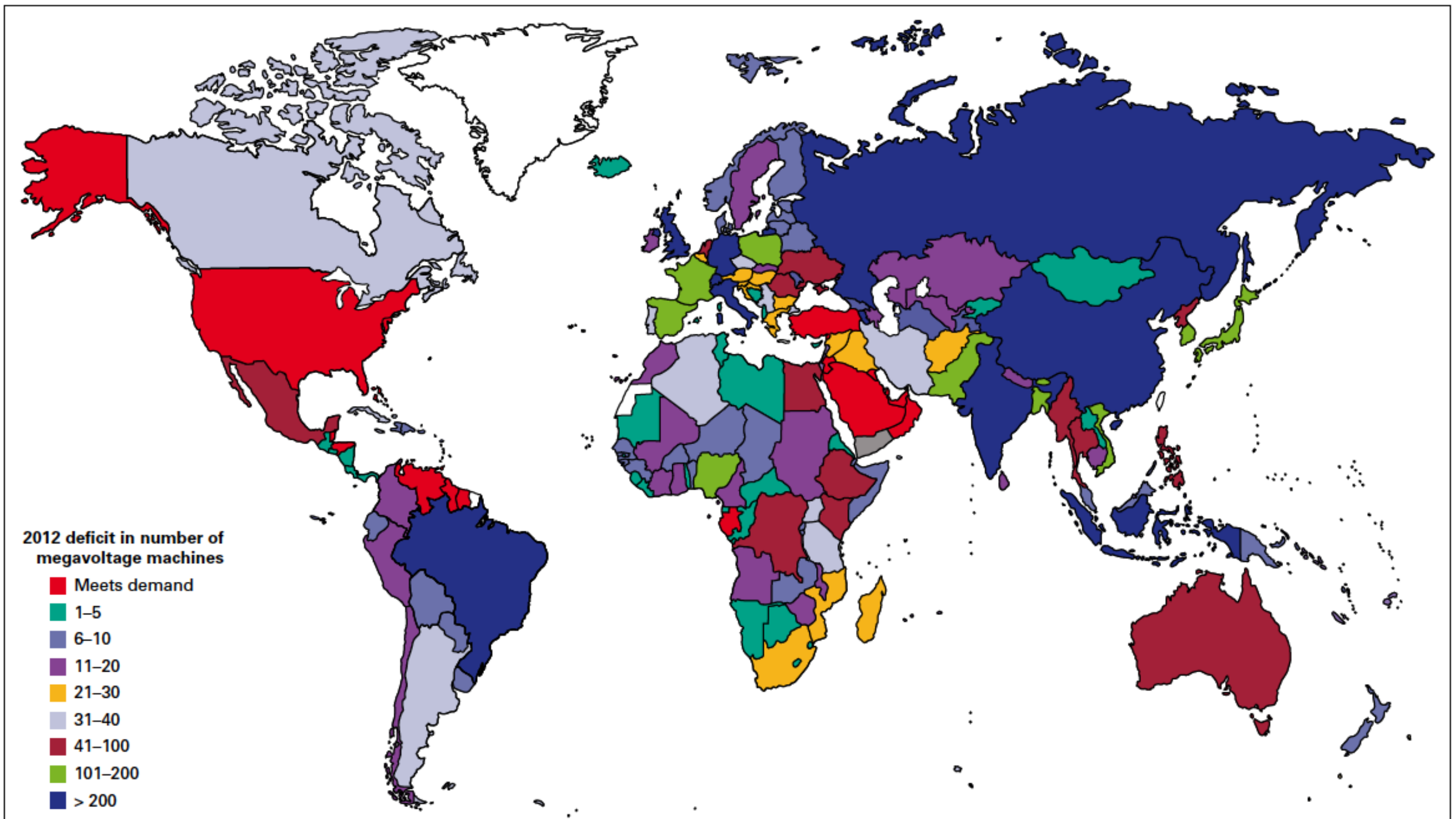


Table 3 – Countries with a Demand for Radiotherapy but No Radiotherapy Services Available

Country	Region	Income Group	RT Patients
Afghanistan	Asia	L	10,796
Bahrain	Asia	H	472
Benin	Africa	L	2,578
Bhutan	Asia	LM	214
Brunei	Asia	H	272
Burkina Faso	Africa	L	3,700
Burundi	Africa	L	3,806
Central African Republic	Africa	L	1,482
Chad	Africa	L	3,288
Congo, Democratic Republic of	Africa	L	18,600
Congo, Republic of	Africa	LM	1,107
Cote d'Ivoire	Africa	LM	5,569
Djibouti	Africa	LM	307
Equatorial Guinea	Africa	H	274
Eritrea	Africa	L	1,601
Fiji	Oceania	UM	591
Guam	Oceania	H	185
Guinea	Africa	L	2,442
Guinea-Bissau	Africa	L	402
Haiti	Caribbean	L	4,091
Lao PDR	Asia	LM	2,080
Lesotho	Africa	LM	662
Liberia	Africa	L	958
Madagascar	Africa	L	10,042
Malawi	Africa	L	7,589
Mali	Africa	L	4,859
Mozambique	Africa	L	10,308
Niger	Africa	L	2,838
Rwanda	Africa	L	3,886
Sierra Leone	Africa	L	1,322
Solomon Islands	Oceania	LM	211
Somalia	Africa	L	4,105
South Sudan	Africa	LM	4,279
Swaziland	Africa	LM	382
Togo	Africa	L	1,776
Turkmenistan	Asia	UM	3,283
Total (N = 36)			120,357

Number of Radiotherapy Machines per Million People




2012 deficit in number of megavoltage machines
Meets demand
1–5
6–10
11–20
21–30
31–40
41–100
101–200
> 200

Relationship of Cancer Incidence and Shortage of Radiation Units in LMIC

Current incidence of cancer in developing low-middle income countries (LMIC): Eight million per year

Current radiotherapy units needed: 9,600

Current supply: 4,400

Current Shortage: 5,000

Table 2: Crude cancer incidence for the LMIC regions

Region	Crude cancer incidence/ million population	60% needing RT treatment	Add 23% for Re-treatment	Number of RT units/ million population
Africa	725	435	535	1
Asia	1,487	892	1,097	2
East Asia	2,370	1,422	1,749	>3
West Asia	999	599	737	>1
Latin America and the Caribbean	1,573	944	1,161	>2
Average All LMIC	1,280	768	944	2
Europe	4,381	2,629	3,233	6

Samiei, Massoud.. Challenges of making radiotherapy accessible in developing countries. *Cancer Control* 2013: 85.

Distribution of Brachytherapy Equipment

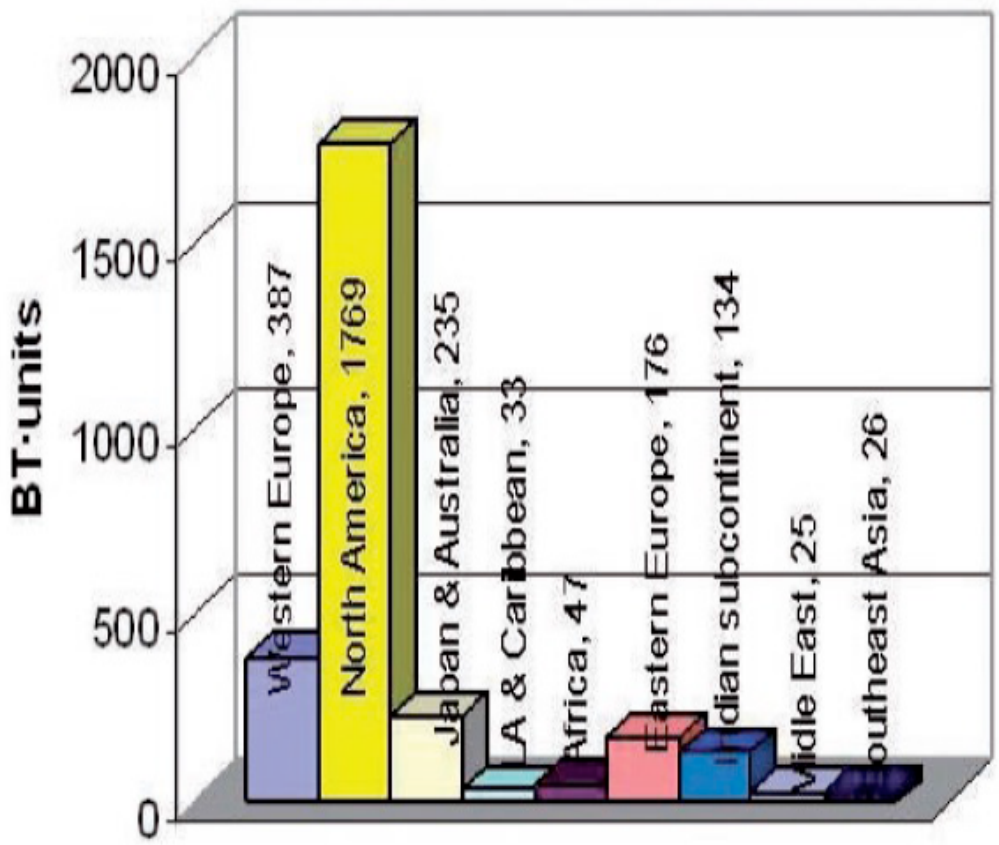


FIG. 9. Distribution of brachytherapy equipment (LDR manual and afterloaders, MDR, HDR) relative to industrial development. Source: Created with data from IAEA, DIRAC directory, 2006 [126]; Ferlay et al. 2004–GLOBOCAN 2002 [4]; IMV Medical Division, Nucletron, USA.

frontiers in ONCOLOGY

ORIGINAL RESEARCH ARTICLE
published: 22 January 2015
doi: 10.3389/fonc.2014.00380

A systematic review of radiotherapy capacity in low- and middle-income countries

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Objectives: The cancer burden in low- and middle-income countries (LMIC) is substantial. The purpose of this study was to identify and describe country and region-specific patterns of radiotherapy (RT) facilities in LMIC.

Methods: A systematic review of the literature was undertaken. A search strategy was developed to include articles on radiation capacity in LMIC from the following databases: PubMed, Embase, CINAHL Plus, Global Health, and the Latin American and Caribbean System on Health Sciences Information. Searches included all literature up to April 2013.

Results: A total of 49 articles were included in the review. Studies reviewed were divided into one of four regions: Africa, Asia, Eastern Europe, and South America. The African continent has the least amount of resources for RT. Furthermore, a wide disparity exists, as 60% of all machines on the continent are concentrated in Egypt and South Africa while 29 countries in Africa are still lacking any RT resource. A significant heterogeneity also exists across Southeast Asia despite a threefold increase in megavoltage teletherapy machines from 1976 to 1999, which corresponds with a rise in economic status. In LMIC of the Americas, only Uruguay met the International Atomic Energy Agency recommendations of 4 MV/million population, whereas Bolivia and Venezuela had the most radiation oncologists (>1 per 1000 new cancer cases). The main concern with the review of RT resources in Eastern Europe was the lack of data.

Conclusion: There is a dearth of publications on RT therapy infrastructure in LMIC. However, based on limited published data, availability of RT resources reflects the countries' economic status. The challenges to delivering radiation in the discussed regions are multidimensional and include lack of physical resources, lack of human personnel, and lack of data. Furthermore, access to existing RT and affordability of care remains a large problem.

Keywords: radiation capacity, global health, low- and middle-income countries, radiation oncology access, systematic review, systematic review

Table 1 | Comparison of estimated radiotherapy machines needed taking into account cancer incidence rates vs. the reported machine counts in the DIRAC database.

Countries	# Annual cancer incidence	# Linacs + Cobalts needed	# Linacs + Cobalts (DIRAC)	# Brachy units needed	#Brachy units (DIRAC)
AFRICA					
Ghana	16580	4	1	2	3
Liberia	2148	2	0	1	0
Nigeria	101797	16	8	8	6
Sierra Leone	–	–	0	–	0
South Africa	74688	48	68	25	25
Uganda	27116	2	0	1	1

special article

Management and Care of Women With Invasive Cervical Cancer: American Society of Clinical Oncology Resource-Stratified Clinical Practice Guideline

RESOURCE STRATIFICATION

SETTING	DEFINITION
Basic	• Core resources or fundamental services that are absolutely necessary for any public health or primary health care system to function. • Single clinical interaction.
Limited	• Services that are intended to produce major improvements in outcome, such as incidence and cost effectiveness, and are attainable with limited financial means and modest infrastructure. • Services may involve single or multiple interactions.
Enhanced	• Resources or services that are optional but important. • Resources should produce further improvement in outcome and increase the number and quality of options and individual choice.
Maximal	• High Level or State of the Art. • Resources or Services that may be used or available in some high resource countries and/or may be recommended by high resource setting guidelines. • Do not adapt to resource constraints.

Anderdon BO & cols. Breast J 2006. Breast Health Global Initiative

NCCN Guidelines Version 1.2018
Cervical Cancer
NCCN Framework™: Basic Resources

NCCN Guidelines Index
Table of Contents
Discussion

NCCN FRAMEWORK™ DEFINITIONS*	
The NCCN Framework™ outlines a rational approach for building cancer management systems to provide the highest achievable cancer care by applying available and affordable services in a logical sequence. Each NCCN Framework™ builds on the one before it, with incremental changes to the allocation of resources, providing a structure for improving cancer care. Treatment recommendations applicable to each NCCN Framework can be viewed within the context of the NCCN Guidelines®.	
Basic Resources	**Basic Resources include essential services needed to provide basic minimal standard of care that improves disease-specific outcomes.**
Core Resources	**Core Resources include services provided in the Basic Resources Framework plus additional services that provide major improvements in disease outcomes (eg, survival) and that are not cost prohibitive.**
Enhanced Resources	**Enhanced Resources include services provided in the Core Resources Framework plus additional services that provide lesser improvements in disease outcomes and/or services that provide major improvements in disease outcomes but are cost prohibitive in lower-resource settings.**
NCCN Guidelines	**The NCCN Guidelines are evidence-based, consensus-driven recommendations made by the NCCN Guidelines panels. They include services provided in the Enhanced Resources Framework plus additional services that provide minor improvements in disease outcomes, interventions that are cost prohibitive in lower-resource settings, and/or services that do not provide improvement in disease outcomes but are desirable services.**
NCCN believes that the best available resources should be provided. If Basic Resources for cancer treatment are unavailable, palliative and best supportive care should be provided. Referral to a higher-resource-level provider with the best available resources, to provide the highest level of cancer care possible, is always an appropriate option for the patient.	
*Modified from Anderson BO and Carlson RW. Guidelines for improving breast health care in limited resource countries: the Breast Health Global Initiative. J Natl Compr Canc Netw 2007;5:349-356.	

GUIDELINE QUESTION

IN EACH RESOURCE SETTING: WHAT ARE THE APPROPRIATE CARE OPTIONS FOR WOMEN WITH INVASIVE CERVICAL CANCER IN:

-WORK UP?

-TREATMENT?

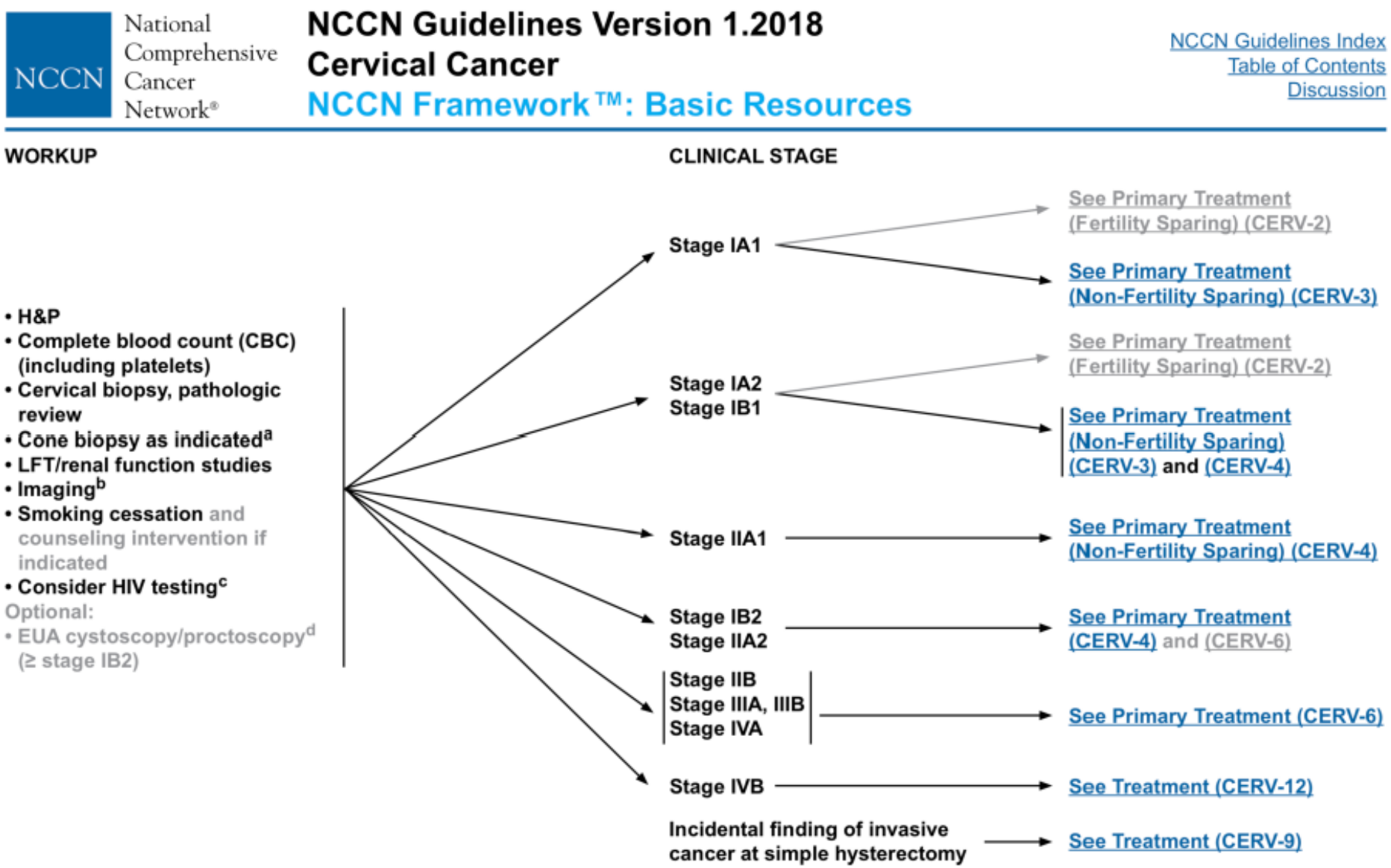
-FOLLOW UP?

-SURVEILLANCE?

WORK UP: RESOURCE STRATIFIED

LIMITED RESOURCE SETTING	BASIC RESOURCE SETTING
• History & Phys Exam. • Cervical +/- Cone Biopsy. • CBC & LFT/Renal Function.	• History & Phys Exam. • Cervical +/- Cone Biopsy. • CBC & LFT/Renal Function. • **Pathology Review.**
• Chest X-Ray (optional in <IB1 disease).	• Chest X – Ray (optional in <IB1 disease). • Advanced Stage Disease: CT Abdo – Pelvis.
• Smoking cessation and counseling. • May offer HPV testing.	• Smoking cessation and counseliing. • May offer HPV testing.

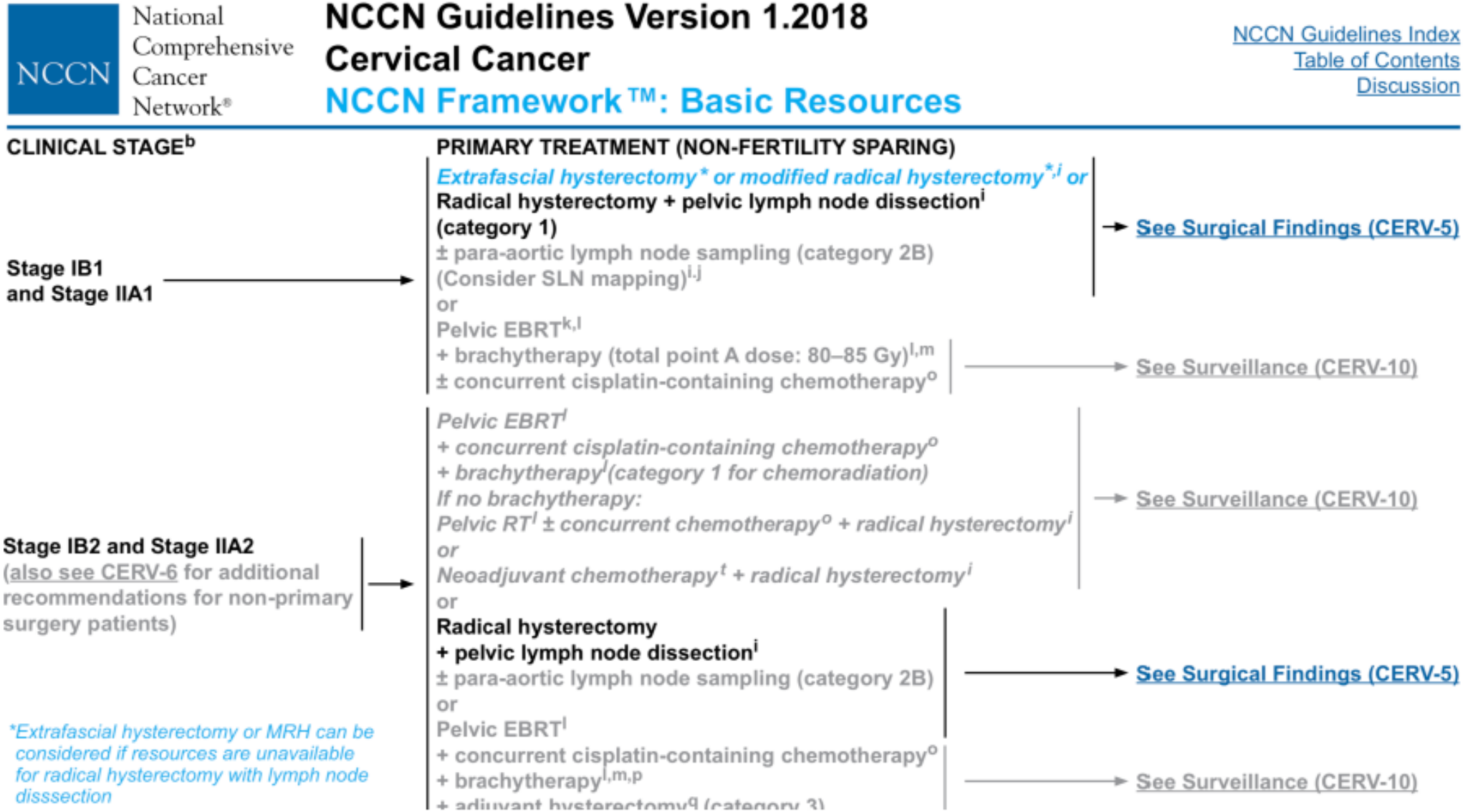
WORK UP: NCCN RECOMMENDATIONS



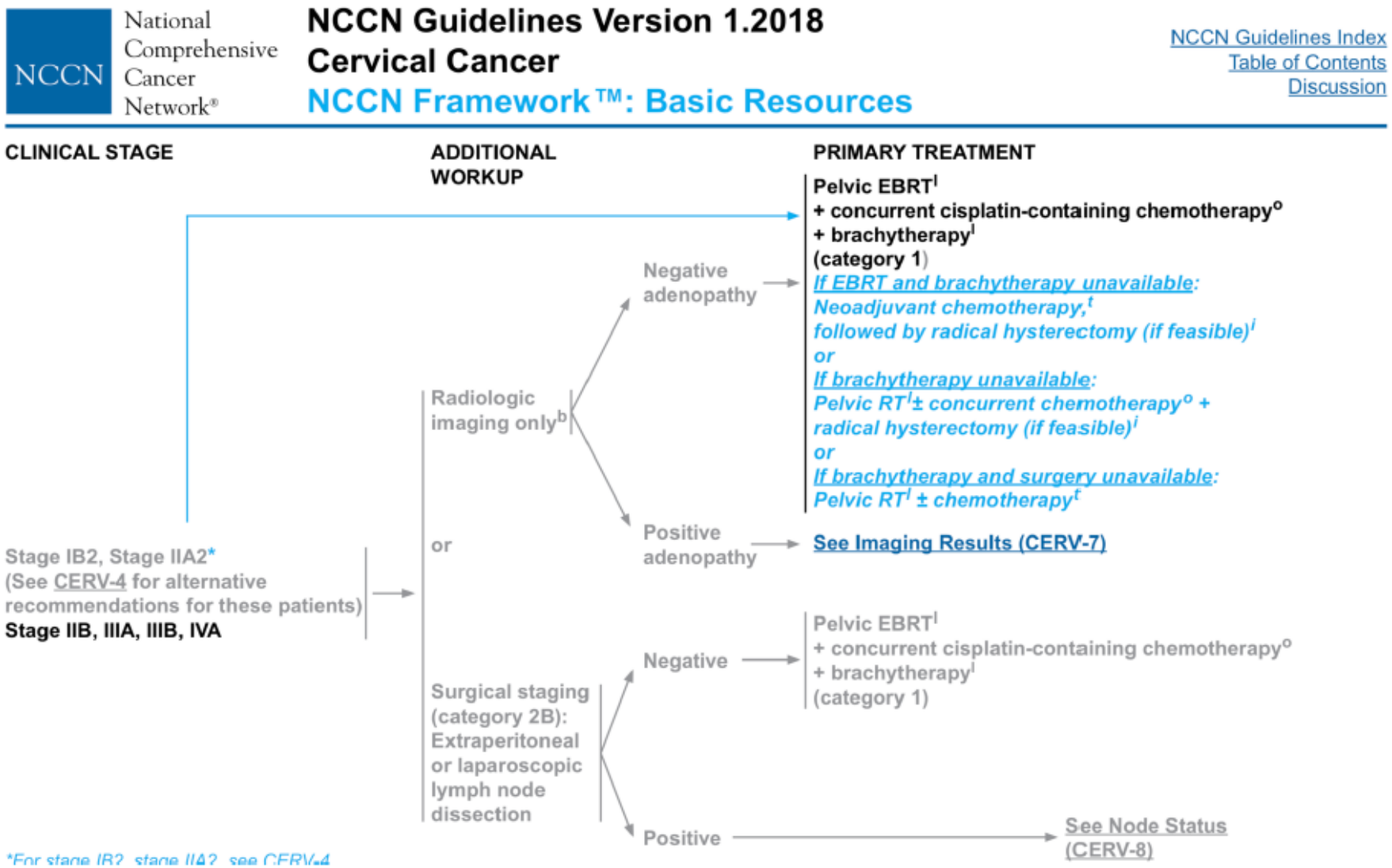
TREATMENT: RESOURCE STRATIFIED

TREATMENT	LIMITED RESOURCE SETTING	BASIC RESOURCE SETTING
SURGERY	• Simple (extrafascial) Hysterectomy. • More Extensive Hysterectomy (if possible)	• Modified Radical or Radical Hysterectomy.
CHEMOTEHRAPY	• Availability is Unpredictable.	• Chemotherapy may be available.
RADIATION TRETAMENT	• Not Available.	• Limited External RT with no Brachytherapy Available.
PATHOLOGY	• Pathology Services Not Available. • Huge Delays. • Pathology Review if Possible.	• Pathology Services in Development.
PALLIATIVE CARE	• Basic Pall Care (Pain & Symptom Management). • Pall Care Service is in Development. • Stage IVB and Recurrent Disease.	• Pain & Symptom Management is Available. • Pall Care Service is in Development.

TREATMENT: NCCN RECOMMENDATIONS



TREATMENT: NCCN RECOMMENDATIONS



SURGICAL STAGING: NCCN RECOMMENDATIONS

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PRINCIPLES OF EVALUATION AND SURGICAL STAGING

TABLE 1: Resection of Cervical Cancer as Primary Therapy*

	Comparison of Hysterectomy Types			Comparison of Trachelectomy Types	
	Simple/Extrafascial Hysterectomy (Type A)**	Modified Radical Hysterectomy (Type B)**	Radical Hysterectomy (Type C)**	Simple Trachelectomy	Radical Trachelectomy***
Indication	Stage IA-1	Stage IA-1 with LVSI and IA-2	Local disease without obvious metastasis, including: Stage IB-1 and 2 Selected Stage IIA	HSIL and stage IA-1	Stage IA-2 and Stage IB-1 if ≤2 cm diameter and squamous histology
Intent	Curative for microinvasion	Curative for small lesions	Curative for larger lesions	Curative for microinvasion Fertility preserved	Curative for select stage IB-1 and IA-2 Fertility preserved
Uterus	Removed	Removed	Removed	Spared	Spared
Ovaries	Optional removal	Optional removal	Optional removal	Spared	Spared
Cervix	Removed	Removed	Removed	Removed	Removed
Vaginal margin	None	1–2 cm margin	Upper 1/4 to 1/3 of vagina	None	Upper 1/4 to 1/3 of vagina
Ureters	Not mobilized	Tunneled through broad ligament	Tunneled through broad ligament	Not mobilized	Tunneled through broad ligament
Cardinal ligaments	Resected at uterine and cervical border	Divided where ureter transits the broad ligament	Divided at pelvic sidewall	Resected at cervicall border	Divided at pelvic sidewall
Uterosacral ligaments	Divided at cervical border	Partially resected	Divided near sacral origin	Divided at cervical border	Divided near sacral origin
Bladder	Mobilized to base of cervix	Mobilized to upper vagina	Mobilized to middle vagina	Mobilized to peritoneal reflection	Mobilized to peritoneal reflection
Rectum	Not mobilized	Mobilized below cervix	Mobilized below middle vagina	Mobilized to peritoneal reflection	Mobilized to above peritoneal reflection
Surgical approach	Laparotomy or laparoscopy	Laparotomy or laparoscopy or robotic laparoscopy	Laparotomy or laparoscopy or robotic laparoscopy	Vaginal	Vaginal or laparotomy or laparoscopy, or robotic laparoscopy

ADJUVANT TREATMENT: SEDLIS CRITERIA

LVSI	STROMAL INVASION	TUMOR SIZE
+	DEEP 1/3	ANY
+	MIDDLE 1/3	>2 cm
+	SUPERFICIAL 1/3	>5 cm
-	MIDDLE or DEEP 1/3	>4 cm

Gynecologic Oncology **73**, 177–183 (1999)

SYSTEMIC TREATMENT: NCCN RECOMMENDATIONS

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SYSTEMIC THERAPY REGIMENS FOR CERVICAL CANCER†,*
(Strongly consider clinical trial)

Chemoradiation (preferred regimens)
- **Cisplatin**
- Cisplatin/fluorouracil

Neoadjuvant Chemotherapy
- ***Cisplatin***

Recurrent or Metastatic Disease

First-line combination therapy††,*
- Cisplatin/paclitaxel/bevacizumab[1] (category 1)
- Cisplatin/paclitaxel (category 1)[2,3]
- Topotecan/paclitaxel/bevacizumab[1] (category 1)
- Carboplatin/paclitaxel[4,5] (Category 1 for patients who have received prior cisplatin therapy)
- Carboplatin/paclitaxel/bevacizumab
- Cisplatin/topotecan[6]
- Topotecan/paclitaxel[1]
- Cisplatin/gemcitabine (category 3)[7]

Possible first-line single-agent therapy*
- Cisplatin (preferred as a single agent)[3]
- Carboplatin[8]
- Paclitaxel[9,10]

Second-line therapy**
(All agents listed here are category 2B)
- Bevacizumab
- Albumin-bound paclitaxel
- Docetaxel
- 5-FU (5-fluorouracil)
- Gemcitabine
- Ifosfamide
- Irinotecan
- Mitomycin
- Pemetrexed
- Topotecan
- Vinorelbine
- Pembrolizumab (for MSI-H/dMMR tumors)

FOLLOW UP: ALL SETTINGS

PERIODICITY (POST TRETAMENT)	INTERVAL
1 – 2 years	3 – 6 months
3 – 5 years	6 – 12 months
> 5 years	Annually

SURVEILLANCE: ALL SETTINGS

- Pelvic & Physical Exam.
- Imaging & Lab Tests Based on Symptoms/Suspicion.
- Patient Education.
- Cytology may be offered every three years (only for surgical patients).
- *PET – CT (optional) after three months of completion of therapy (high risk).

TAKE HOME MESSAGES

- Treatment of Invasive Cervical Cancer represents a challenge in basic/limited setting.
- Sparing Fertility options should not be offered as part of the treatment in this setting.
- Radiation Treatment (including human resources) is an urgent need in LMIC ‘s (Africa is not the exception).
- Consider availability of resources before treatment decision is made.
- Balance between benefits & risks in mandatory.
- Lack of Evidence from LMIC’s.

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THANKS

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TABLE 1 FIGO staging of cancer of the cervix uteri (2018).

Stage	Description
I	The carcinoma is strictly confined to the cervix (extension to the uterine corpus should be disregarded)
IA	Invasive carcinoma that can be diagnosed only by microscopy, with maximum depth of invasion <5 mm[a]
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[b]
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
II	The 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 involvement
IIA1	Invasive carcinoma <4 cm in greatest dimension
IIA2	Invasive carcinoma ≥4 cm in greatest dimension
IIB	With parametrial involvement but not up to the pelvic wall
III	The carcinoma involves the lower third of the vagina and/or extends to the pelvic wall and/or causes hydronephrosis or nonfunctioning kidney and/or involves pelvic and/or para-aortic lymph nodes[c]
IIIA	The carcinoma involves the lower third of the vagina, with no extension to the pelvic wall
IIIB	Extension to the pelvic wall and/or hydronephrosis or nonfunctioning kidney (unless known to be due to another cause)
IIIC	Involvement of pelvic and/or para-aortic lymph nodes, irrespective of tumor size and extent (with r and p notations)[c]
IIIC1	Pelvic lymph node metastasis only
IIIC2	Para-aortic lymph node metastasis
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 to adjacent pelvic organs
IVB	Spread to distant organs