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# LITERATURE REVIEW

# How far is COVID-19 Pandemic Situation Influence Surgical Treatment in Gynecology Cancer? : Comprehensive Review for Indonesian

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### Abstract

Corona virus disease 2019 (COVID-19) was declared as global pandemic and caused devastating crisis in society. Despite of the growing pandemic, high quality medical services toward gynaecologic oncology patients must continue without overlooking the safety of medical staffs. Reducing risk is crucial and achieved by limiting high risk situations. The decision to perform or postpone surgery should be made based on the type and stage of the disease, medical condition of the patient, area census of COVID-19 cases, COVID-associated risks, and available logistic support including adjuvant treatment services. There are several recommendation for gynaecology cancer treatment published by several countries. However, those guidelines cannot be applied to every country across the globe because of the different situations of COVID-19 therefore we proposed guidelines for Indonesia. Surgical management for confirmed COVID-19 case should be postponed for at least 15 days for nonemergency cases. Surgery must be performed immediately for emergency cases such as Haemorrhage with unstable vital status refractory to transfusion, viscus perforation, signs of bowel obstruction refractory to conservative treatment, closed loop bowel or large bowel obstruction, hydatiform mole for live saving procedure.

Keywords: COVID-19, gynaecology cancer, surgical management

# **INTRODUCTION**

Since after December 8, 2019 when the first case of coronavirus disease 2019 (COVID-19) was identified in Wuhan, China, the number of infected cases has been strikingly increased. World Health Organization (WHO) declared a "public health emergency of international concern" at January 30, 2020 and a "global pandemic" at March 11, 2020. As of April 18, 2020, confirmed cases were 2,188,936 and confirmed deaths were 152,515 across 216 countries worldwide. 1,2

In the time span of 2 months, everything has changed. The pandemic of coronavirus disease 2019 (COVID-19) has torn through the fabric of our society and laid waste to the daily routines we practiced automatically. The most basic assumptions of how we plan our day,

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how we organize our family life, and how we practice medicine are gone, and in their place we socially isolate, we home school, and we split shifts to decrease exposure. <sup>1,2</sup>

Our world is facing a devastating crisis in the growing pandemic associated with the coronavirus (COVID- 19) disease, in this special situation we must continue to provide our gynaecologic oncology patients with the highest quality of medical services and at the same time assure that we maximize the safety not only of our patients and their families but also of the medical staff and all associated teams that care for patients both in the inpatient and outpatient settings. In the current pandemic context of COVID-19 and the subsequent saturation of resuscitation services, we must not only reconsider our therapeutic indications but also limit the risk of infection in our cancer patients. To reduce the risk of infections two priorities are crucial: to limit high risk situations such as surgery and chemotherapy; and to limit the patient's contact with healthcare workers and, in particular, with places of care. <sup>4,5</sup>

While bearing in mind that the main objective for our patients with pelvic gynaecologic cancer remains therapeutic management, all alternatives to surgery must be considered. In particular, the risk-benefit ratio for surgical procedures must be analysed on a case-by-case basis and in multidisciplinary meeting, taking into account the risk of loss of chance that could result from an alternative strategy that has not been proven. The main objective is to avoid postoperative complications and the need for ensuing postoperative intensive care and in particular the occupation of a resuscitation bed. However, in as far as it is possible according to the saturation of the structure of care related to COVID-19, it is advisable to apply traditional recommendations. <sup>1,6,7</sup>

### SURGICAL MANAGEMENT FOR GYNAECOLOGY CANCER DURING COVID-19 PANDEMIC

Surgery in cancer cases is time sensitive. The decision to perform or postpone surgery should be made based on the type and stage of the disease, medical condition of the patient, area census of COVID-19 cases, COVID-associated risks, and available logistic support including adjuvant treatment services. <sup>1,8</sup>

In the current COVID-19 context, patient prioritization should integrate the nature of the therapeutic strategy (curative versus palliative), their age, estimated life expectancy, and whether the diagnosis is recent or not. Taking into account the duration of incubation and the high percentage of asymptomatic patients, all pathologic samples should be considered as potentially infected. <sup>1,4,6</sup>

A recent publication has shown that fixation in formalin can inactivate the COVID-19 virus. The risk of toxicity linked to formalin exposure appears to be less serious than that linked to the handling of fresh, non-fixed tissue potentially carrying COVID-19. If necessary, operating samples from patients included in clinical trials can be sent fresh to the laboratory but all the necessary precautions should be applied. <sup>4,6,7</sup>

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In a pandemic, for the proper use of operating, anaesthetic and intensive care resources, hyper thermic intraperitoneal chemotherapy is strongly discouraged. We should also avoid performing surgeries that would require ICU resources and also recommend alternative treatment plans in patients with medical comorbidities that would make surgical intervention a high-risk procedure <sup>3,5,6</sup>

Imaging tests should be maintained or postponed according to their importance and the impact on the choice of treatment strategy. As far as possible, multidisciplinary meetings should be held with a triple objective: not to delay the care of patients who need it; not to unnecessarily mobilize doctors who are not absolutely necessary for the discussion; not to promote the transmission of the virus between cardiopulmonary resuscitation (CPR) doctors and Gynaecologist Oncologist <sup>4,6</sup>

There are several recommendation for gynaecology cancer treatment:

# 1. The French FRANCOGYN group of the National College of French Gynaecologists and Obstetricians (CNGOF)<sup>2</sup>

### a. Confirmed cases for Covid-19

If a patient with a gynaecologic cancer presents with COVID-19, surgical management should be postponed for at least 15 days for nonemergency cases.

### b. Not confirmed for Covid-19 in High-risk area

- a) For cervical cancer
  - radiotherapy and concomitant radio chemotherapy could replace surgery as firstline treatment and the value of lymph node staging should be reviewed on a caseby-case basis.
  - Hysterectomy after concomitant radio chemotherapy is only indicated if a posttherapeutic tumour residue is identified
- b) For advanced ovarian cancers
  - For advanced cancers which may require the use of postoperative resuscitation for cytoreduction surgery, neoadjuvant chemotherapy should be the preferred option even if primary cytoreduction surgery could be envisaged
  - It is legitimate not to offer hyper thermic intraperitoneal chemotherapy (HIPEC) to patients during the COVID-19 pandemic period when resuscitation resources are saturated.
  - If access to the operating theatre is restricted due to the crisis, patients scheduled to undergo interval surgery after 3 or 4 cycles of chemotherapy could continue their chemotherapy and surgery be performed after 6 cycles of chemotherapy.
     The patient should then undergo at least two new cycles of chemotherapy after their closing surgery.

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### c) For presumed early stage ovarian cancers

- According to adnexectomy, restaging surgery can be deferred from 1 to 2 months
  if access to anaesthesia-resuscitation is saturated.
- Furthermore, in case of saturation of access to anaesthesia-resuscitation, a 2-step strategy is recommended for images suggestive of ovarian cancer on an isolated ovarian mass: adnexectomy of the suspect mass, and decision to perform complete staging surgery on final histologic analysis and decision of a CPR doctor.
- d) For early stage endometrial cancer of low and intermediate preoperative ESMO risk
  - Hysterectomy with bilateral adnexectomy combined with a sentinel lymph node procedure is recommended.
  - Surgery can be postponed for 1 to 2 months in low-risk endometrial cancers (FIGO la stage on MRI and grade 1-2 endometrioid cancer on endometrial biopsy).
- e) For early stage endometrial cancer at high ESMO risk
  - Avoid lymphadenectomy which increases the risk of pre and postoperative complications and the subsequent risk of requiring postoperative resuscitation
- f) For advanced endometrial cancer
  - o First-line medical treatment should be administered
- g) For suspected endometrial cancer
  - For a patient who presents postmenopausal metrorrhagia and endometrial thickening on ultrasound, endometrial pipelle sampling should be performed in consultation.
  - Diagnostic hysteroscopy in consultation should be avoided unless performed at the same time (to limit the number of patient trips).
  - In the event of a non-contributory diagnostic assessment, the date of the diagnostic hysteroscopy and biopsy curettage should be adjusted according to the degree of suspicion of endometrial cancer and the constraints of access to the operating room.
  - If the risk of cancer appears low and the patient is elderly, the procedure under general anesthesia can be postponed until after the confinement period for COVID-19

### h) For Trophoblastic Tumour

- Trophoblastic tumors are considered curable but have a high metastatic potential.
   This justifies maintaining the care of these young patients without delay.
- Patients with low risk trophoblastic tumours (FIGO score ≤6) should be administered methotrexate at home to avoid the four injections of each cure in an outpatient setting.

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- o Patients with high-risk tumours should be administered multidrug regimens without delay given the generally multi-metastatic nature from the outset.
- Hydatidiform moles should be managed by the standard treatment of curettage suction under ultrasound control and not by medicinal evacuation which carries a high risk of retention

### i) For Vaginal Cancer

- o Most patients presenting with vaginal cancer are at an advanced stage and will require exclusive radio-/ chemo-/ brachytherapy treatment.
- o The value of lymph node staging surgery must be reviewed on a case-by-case basis depending on the location, the results of imaging tests, and the disease stage

### j) For Vulvar Cancer

- o The management of vulvar cancers, for which surgery remains the standard and often the only treatment option, should not change.
- o However, this cancer often affects the elderly and if a tumour has not progressed much in an elderly patient, treatment may be postponed for a few weeks.
- o The patient should be discharged as early as possible and cared for at home to reduce the duration of hospitalization.
- o When surgical management involves heavy surgery (amputation), the use of concomitant radio chemotherapy should be discussed in CPR

### k) Post-therapeutic follow-up during Covid-19 Pandemic

- Post-therapeutic oncological follow-up consultations should be postponed for 2 months (i.e., after the COVID-19 confinement period), because there is no obvious loss of chance.
- o Follow- up can be performed by teleconsultation when the technical tools are available.
- o Follow-up of endometrial and / or cervical cancer is based on clinical examination, which cannot be replaced by teleconsultation, and avoid a follow-up consultation 2 months later

### 2. American College of Surgeons (2020)9

- a. Emergency surgeries (no delay)
  - Tubal-ovarian abscess not responding to conservative therapy
  - · Acute and severe vaginal bleeding

### b. Surgeries that if significantly delayed could cause significant harm

- Ovarian, Tubal or Peritoneal cancer
- Ovarian masses cancer is suspected
- Endometrial cancer and endometrial intraepithelial neoplasia

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- Cervix cancer
- Vulvar cancer
- Vaginal cancer
- Gestational Trophoblastic Neoplasia

### c. Surgeries that could be delayed for a few weeks

- Cervical conization or Loop Electro-Excision Procedure to exclude cancer
- Excision of precancerous or possible cancerous lesions of the vulva

### d. Surgeries that can be delayed several months

- Surgery for fibroids (sarcoma is not suspected)

   Myomectomy
   Hysterectomy
- Surgery for endometriosis, pelvic pain
- Surgery for adnexal masses that are most likely benign (eg, dermoid cyst)
- Therapeutic D&C with or without hysteroscopy with or without endometrial ablation for abnormal uterine bleeding and cancer is not suspected
- Cervical conization or Loop Electro-Excision Procedure for high grade squamous intraepithelial lesions
- Genital plastic surgery
- Excision of condyloma acuminate (if cancer is not suspected)

### 3. The Society of Gynaecologic Oncology of Canada (GOC)8

### a. Active Covid-19 Infection

- Any surgery should be postponed until the end of symptoms in the patients who test positive for COVID-19 according to provincial mandates with possible lung imaging based on the clinical scenario and possible negative testing unless there is a lifethreatening emergency.
- The risks of post-operative complications are markedly increased in the COVID-19 population and moreover in an oncology context.
- o Every precaution required should be taken in order to maintain a safe environment with minimal risk of contamination for the entire surgical and anaesthetic team.

### b. For Minimal Invasive Technique

- The concern has been raised about the possible risk of aerosolization of the COVID19 during minimally invasive surgery however there is no evidence that this is the case.
- Encourages controlled venting of the pneumoperitoneum into a closed smoke evacuation system with Ultra Low Particulate Air Filtration capability and avoiding rapid desufflation during times of tissue extraction or instrument change to prevent gas venting into the operating room.

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 Proper personal protective equipment should always be worn based on the requirements of each facility

### c. Non Covid-19 confirmed cases

### 1) EMERGENT - Immediate

Significant symptoms regardless of the primary malignancy and in the context where surgery offers the most appropriate care:

- Haemorrhage with unstable vital status, refractory to transfusion.
- Refractory symptoms to medical management requiring surgical attention (e.g. pain).
- Viscus perforation.
- Signs of bowel obstruction refractory to conservative treatment closed loop bowel or large bowel obstruction.
- Hydatiform mole: Curettage or hysterectomy.

### 2) URGENT - 1 TO 4 WEEKS depending on team conference recommendations

Criteria based on the aggressiveness of the disease AND the possibility of a curative treatment, regardless of the age of the patient. ECOG performance status and level of medical intervention and surgical complexity should be taken into consideration. Due to the delay in surgery, these conditions are at risk of deterioration with a deleterious impact on the patient's survival. In women with metastatic disease or significant co-morbidities a medical approach should be considered.

### OVARIAN CANCER

- Suspicious ovarian masses with elevation of tumor markers and or ascites.
- Timely access to interval debulking surgery after maximum benefit from neoadjuvant chemotherapy.
- Primary debulking for ovarian cancer unlikely to respond to neoadjuvant chemotherapy (such as low grade serous, clear cell, mucinous).

### ENDOMETRIAL AND UTERINE CANCER

- High grade endometrial cancer (FIGO grade 3 endometrioid/ grade 2 p53 mutated/serous / carcinosarcoma / undifferentiated/clear cell).
- Known/suspicion of high grade uterine sarcoma.

### CERVICAL CANCER

- Non-microinvasive (FIGO 2019 stage IB1, IB2) appropriately treated by surgery.
- FIGO 2019 stage IB3 and greater should be evaluated for concomitant chemoradiation.

### VULVAR CANCER

- Large volume tumor (Stage IB and higher).
- If involvement of sphincters, should be considered for chemoradiotherapy.

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### 3) SEMI-URGENT

Although surgical management is preferable within 28 days as required by the standards for access to oncologic surgery, the following patients will be postponed after individual assessment:

- OVARIAN TUMOR
  - Ovarian mass with adverse features with normal tumor markers
- OVARIAN CANCER
  - Advanced ovarian cancer with the possibility of initiating neoadjuvant chemotherapy or continuing chemotherapy.
- ENDOMETRIAL CANCER
  - EIN/atypical hyperplasia and low-grade endometrial cancer
    - Progestin hormone therapy should be offered pending surgery.
    - If a patient reaches 12 weeks on progestin treatment and still has persistent disease on endometrial biopsy, the priority level should be upgraded to urgent.
  - Advanced stage endometrial cancer could be treated with neoadjuvant chemo.
- CERVICAL CANCER
  - FIGO 2019 stage IA1, IA2: These cases could be offered LEEP under local anesthesia with imaging assessment of lymph nodes.
- VULVAR CANCER
  - Presumed stage 1a tumors could be addressed by wide local excision under local anesthesia

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### 4. Association of Gynecologic Oncologists of India 10

**Table 1**. The suggested acuity scale for surgical decision making in hospitals with low or no COVID census

Description	Definition	Examples	Suggested plan
Category 1	Low acuity surgery (Not life threatening)	Treatment of pre-invasive lesions of cervix or endometrium	Postpone surgery for few weeks or months e.g. conization to rule out invasion may be delayed for weeks but for HSIL may be delayed for months
Category 2	Intermediate acuity surgery (Not life threatening but potential for future morbidity and mortality)	Low-risk cancer (e.g. early cervical cancer, well differentiated endometrial cancer with comorbidities)	Postpone surgery if possible after informed decision making or consider early discharge.  Cases with comorbidities should preferably be counselled for rescheduling surgery
Category 3	High acuity surgery/ healthy patient (Life threatening)	Most cancers, highly symptomatic patients (Type II endometrial cancers, ovarian cancer, interval debulking surgery after 3—4 cycles of chemotherapy, uterine sarcoma, those in need of emergency procedures, excision of malignant recurrences, GTN)	Do not postpone if COVID census low and resources permit.  A multidisciplinary team discussion and planning of therapy is preferred prior to surgery for realistic expectations.

### Special circumstances

If healthcare facilities are burdened by many COVID-19 cases with accelerating graphs and limited supplies being available, only life-saving procedures may be done and consider observation for all. Alternatively neoadjuvant therapy may be considered for carefully selected eligible cases after informed consent

However, in situations where all hospital resources are routed to COVID 19 patients, with limited or no ICU, HDU capacity or no mechanical ventilators being available all cases should be deferred

It is safe to donate blood and therefore donors should be encouraged to maintain constant supply Laparoscopic procedures are preferably avoided

### 5. International Journal of Gynecological Cancer Editor4

International Journal of Gynaecological Cancer have compiled evidence-based data using established guidelines to propose strategies to optimize care of our patients while at the same time offering potential options to alleviate the burden to the healthcare system when resources may need to be diverted to the direct care of patients affected by the coronavirus (COVID-19) disease:

### a. Cervical Cancer

- a. Pre-invasive disease: According to American Society for Colposcopy and Cervical Pathology (ASCCP) recommendations, individuals with low-grade cervical cancer screening tests may have postponement of diagnostic evaluations for 6–12 months. Individuals with high-grade cervical screening tests should have diagnostic evaluation scheduled within 3 months.
- b. Early-stage cervical cancer: In a setting where oncologic surgery is still allowed, proceeding with standard of care is recommended. However, when access to surgery is limited, these steps may be considered. Assuring that disease is localized by imaging studies, such as CT scans or PET/CT imaging (if available), and if so, consideration of postponing procedures that may be considered high-risk of prolonged operative time, or potential intraoperative and/or postoperative

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complications, such as radical trachelectomy or radical hysterectomy, for a period of 6–8 weeks, or until crisis resolves. In the setting of microscopic disease or low-risk disease (<2 cm, low-risk histology), consideration for conization or simple trachelectomy ± sentinel lymph nodes, if available and feasible. In the setting of gross visible tumour, consideration of neoadjuvant chemotherapy.

c. Locally-advanced disease: Consider hypofractionation (increase dose per day and reduce the number of fractions) to reduce the number of times the patient has to come in for hospital vis- its and treatments. According to the American Brachytherapy Society, brachytherapy procedures for cervical cancer patients should not be delayed in patients without COVID-19 symptoms. For radiation therapy patients that are visiting on a daily basis, consider changing face to face weekly visits to telemedicine, unless examination is required.

### b. Endometrial Cancer

- a. Low-risk patients: Patients with grade 1 disease can be considered for conservative management with non-surgical options, including systemic hormonal therapy or intrauterine devices.
- b. High-risk patients: Patients with higher-risk disease (grade 2 or 3 or high-risk histology) should be considered for simple hysterectomy and bilateral salpingo-oophorectomy alone ± sentinel lymph nodes, if available and feasible, and/or postoperative management based on uterine risk factors. Risk of laparoscopic surgery concerning pneumoperitoneum in the setting of COVID-19 must be weighed against risk of laparotomy.
- c. Advanced disease: Patients with advanced disease should be considered for tissue biopsy to confirm diagnosis and proceeding with systemic therapy.

### c. Ovarian Cancer

- a. In suspected early disease, consideration of multiple factors, such as age and family history of breast/ovarian cancer, physical examination, and thorough radiologic evaluation with pelvic ultrasound with colour Doppler, MRI, and/or serum markers, such as CA125 and HE4, to assess risk of malignancy in adnexal mass.
- b. In patients with advanced stage disease, consideration of tissue biopsy to confirm diagnosis of disease and proceeding with neo-adjuvant chemotherapy until crisis is resolved and consideration of surgery at a later time.
- c. In patients who have already started neoadjuvant chemotherapy, consideration of extending the treatment plan to six cycles, rather than three, before consideration of interval cytoreductive surgery. However, decision in this setting is highly dependent on resource availability and access to the operating room for the

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respective institution, recognizing that additional cycles of chemotherapy may deplete bone marrow reserve and lead to higher susceptibility to infection.

- d. In patients who have completed up-front adjuvant platinum-based chemotherapy, consideration of no further treatment. Maintenance therapy may require repeat visits for toxicity evaluation which may place added burden on patient, families, and healthcare teams with the risk of added exposure to infection.
- e. For patients traveling long distances for treatment, consideration of arranging with local oncologists to administer therapy, in order to avoid traveling, particularly by air, and further in- creasing risk of exposure and infection. Offer distant evaluation for toxicity through telecommunication.
- f. For patients who have progressed on current treatment for recurrent disease, decisions regarding initiation of additional chemotherapy should be based on clinical judgment and potential for benefit based on expected response of subsequent available

### PROPOSED GUIDELINE FOR INDONESIA

Many of medical societies announced their own guidelines for management of cancer patients including gynaecologic cancers in order to effectively confront this terrible situations. However, those guidelines cannot be applied to every country across the globe because of the different situations of COVID-19. Instead, experiences from the individualized management in affected local areas are real examples that could help ascertain the best safety of both patients and health care providers. There are several important point that can we inferred from the guideline:<sup>7</sup>

### 1. The principle for gynaecology cancer management under Covid-19 Pandemic:

- The subsequent saturation of resuscitation services
- Reconsider our therapeutic indications but also limit the risk of infection in our cancer patients.
- To reduce the risk of infections two priorities are crucial:
  - o to limit high risk situations such as surgery
  - To limit the patient's contact with healthcare workers and, in particular, with places of care.
- The risk-benefit ratio for surgical procedures must be analysed on a case-by-case basis and in multidisciplinary meeting, taking into account the risk of loss of chance that could result from an alternative strategy that has not been proven.
- To avoid postoperative complications and the need for ensuing postoperative intensive care and in particular the occupation of a resuscitation bed.

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### 2. Recommendation for Gynaecological Cancer Surgical Management in Covid-19 Pandemic

- A. For Confirmed cases for Covid-19
  - surgical management should be postponed for at least 15 days for nonemergency cases
  - not delayed surgery for emergency situation :
    - o Haemorrhage with unstable vital status, refractory to transfusion.
    - Viscus perforation.
    - Signs of bowel obstruction refractory to conservative treatment closed loop bowel or large bowel obstruction.
    - Hydatiform mole for live saving procedure
- B. Not Confirmed for Covid-19
  - 1. Cervical cancer
    - a. Pre-invasive disease
      - Low-grade cervical cancer screening tests may have postponement of diagnostic evaluations for 6–12 months.
      - High-grade cervical screening tests should have diagnostic evaluation scheduled within 3 months
    - b. Radiotherapy and concomitant radio chemotherapy could replace surgery as firstline treatment
    - c. Early-stage cervical cancer:
      - In a setting where oncologic surgery is still allowed, proceeding with standard of care is recommended.
      - When access to surgery is limited :
        - Assuring that disease is localized by imaging studies, such as CT scans or PET/CT imaging (if available)
        - Consideration of postponing procedures that may be considered high-risk of prolonged operative time, or potential intraoperative and/or postoperative complications, such as radical trachelectomy or radical hysterectomy, for a period of 6–8 weeks, or until crisis resolves

### 2. Ovarian Cancer

- a. Surgery with postoperative resuscitation risk should give neoadjuvant chemotherapy even if primary cytoreduction surgery could be envisaged
- b. In patients with advanced stage disease, consideration of tissue biopsy to confirm diagnosis of disease and proceeding with neo-adjuvant chemotherapy until crisis is resolved and consideration of surgery at a later time
- c. If access to the operating theatre is restricted due to the crisis, patients scheduled to undergo interval surgery after 3 or 4 cycles of chemotherapy could continue

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their chemotherapy and surgery be performed after 6 cycles of chemotherapy. The patient should then undergo at least two new cycles of chemotherapy after their closing surgery

- d. For suspected early stage: restaging surgery can be deferred from 1 to 2 months if access to anaesthesia-resuscitation is saturated
- e. It is legitimate not to offer hyper thermic intraperitoneal chemotherapy (HIPEC)

### 3. Endometrial Cancer

- a. For a patient who presents postmenopausal metrorrhagia and endometrial thickening on ultrasound, endometrial pipelle sampling should be performed in consultation.
- b. Diagnostic hysteroscopy in consultation should be avoided unless performed at the same time (to limit the number of patient trips).
- c. Low-risk patients: Conservative management with non-surgical options, including systemic hormonal therapy or intrauterine devices.
- d. High-risk patients: Patients with higher-risk disease (grade 2 or 3 or high-risk histology) should be considered for simple hysterectomy and bilateral salpingo-oophorectomy alone ± sentinel lymph nodes, if available and feasible, and/or postoperative management based on uterine risk factors. Risk of laparoscopic surgery concerning pneumoperitoneum in the setting of COVID-19 must be weighed against risk of laparotomy.
- e. Advanced disease: Patients with advanced disease should be considered for tissue biopsy to confirm diagnosis and proceeding with systemic therapy

### 4. Vulvar Cancer

- a. Surgery remains the standard and often the only treatment option, should not change
- b. treatment may be postponed for a few weeks
- c. discharged as early as possible and cared for at home to reduce the duration of hospitalization
- d. Management involves heavy surgery (amputation), the use of concomitant radio chemotherapy should be discussed

### 5. Vaginal Cancer

- a. Most patients presenting with vaginal cancer are at an advanced stage and will require exclusive radio-/ chemo-/ brachytherapy treatment.
- b. The value of lymph node staging surgery must be reviewed on a case-by-case

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### 6. Trophoblastic cancer

- a. Low risk trophoblastic tumours (FIGO score ≤6) should be administered methotrexate at home to avoid the four injections of each cure in an outpatient setting.
- b. High-risk tumours should be administered multidrug regimens without delay given the generally multi-metastatic nature from the outset.
- c. Hydatidiform moles should be managed by the standard treatment of curettage suction under ultrasound control and not by medicinal evacuation which carries a high risk of retention

### **CONCLUSION**

- 1. During COVID-19 pandemic the gynaecologic oncology patients are at risk of contracting COVID-19 during medical treatment.
- 2. Lowering risk of infections is achieved by limiting high risk situations such as surgery and chemotherapy; limiting the patient's contact with healthcare workers and, in particular, with places of care.
- The decision to perform or postpone surgery should be made based on the type and stage of the disease, medical condition of the patient, area census of COVID-19 cases, COVID-associated risks, and available logistic support including adjuvant treatment services.
- 4. For confirmed case of COVID-19, surgical management should be postponed for at least 15 days for nonemergency cases.

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