

REVIEW ARTICLE**Examination and counseling of gynecological cases during Corona Virus Disease 2019 (COVID-19) pandemic****I Gde Sastra Winata*** , **Clara Amanda**

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ABSTRACT

COVID-19 is a recent pandemic caused by the SARS COV-2 agent with a high incidence and mortality. The disease is transmitted through respiratory droplets and direct contact. Clinically this COVID-19 patient is mainly related to the respiratory tract symptoms. The current clinical classifications are divided into suspected, probable, and confirmed cases. To reduce transmission must pay attention to universal and hierarchical precaution, aseptic standards, and sterile techniques. The types of gynecological examinations during a pandemic are the same as those in general, except that the methods, settings, and priorities are different. The examination begins with screening to assess the risk of transmission so that it can determine the place of examination. The urgency of the examination, history of TOCC, local transmission, provider, and room conditions also need to be considered. Counseling during a pandemic can be done in person or by telemedicine. Counseling is provided for general and case-specific gynecological information. Each gynecological case requires a different focus on counseling.

Keywords: COVID-19; examination; counseling; gynecology; virus; communicable disease; health system

ABSTRAK

COVID-19 merupakan pandemi terbaru yang disebabkan oleh agen SARS COV-2 dengan insidensi dan mortalitas yang tinggi. Penyakit ini ditularkan melalui droplet pernafasan dan kontak langsung. Secara klinis penderita COVID-19 ini terutama berkaitan dengan gejala saluran pernafasan. Klasifikasi klinis saat ini dibagi menjadi kasus yang dicurigai, mungkin, dan dikonfirmasi. Untuk mengurangi penularan harus memperhatikan kewaspadaan universal dan hierarkis, standar aseptik, dan teknik steril. Jenis pemeriksaan ginekologi selama pandemi sama dengan pemeriksaan pada umumnya, kecuali metode, pengaturan, dan prioritasnya berbeda. Pemeriksaan diawali dengan penapisan untuk menilai risiko penularan sehingga dapat menentukan tempat pemeriksaan. Urgensi pemeriksaan, riwayat TOCC, penularan lokal, provider, dan kondisi ruangan juga perlu dipertimbangkan. Konseling selama pandemi dapat dilakukan secara langsung atau melalui telemedicine. Konseling disediakan untuk informasi ginekologi umum dan khusus kasus. Setiap kasus ginekologi membutuhkan fokus yang berbeda pada konseling.

Kata kunci: COVID-19; pemeriksaan; konseling; ginekologi; virus; penyakit menular; sistem kesehatan

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INTRODUCTION

Corona Virus Disease 2019 (COVID-19) is a disease that is currently spread throughout the world. The World Health Organization (WHO) has declared this disease as a pandemic. Firstly, the disease appeared in Wuhan, Hubei Province, China at the end of 2019. The virus that causes COVID-19 is known as Severe Acute Respiratory Syndrome-Corona Virus-2 (SARS COV-2), which is a type of coronavirus and has a structure that similar to the viruses that cause SARS and the previous Middle East Respiratory Syndrome (MERS). As SARS and MERS, this disease initially presents as clinically acute respiratory and lung infections such as pneumonia. In Indonesia, the first cases of COVID-19 were reported in early February 2020.¹⁻³

The incidence and fatality of this disease are quite high. Based on data on August 29, 2020, the global number of cases reached 24,935,559 and nearly a quarter of the total number of cases (6,096,756 cases) was in the United States. However, this number is still increasing. Meanwhile in Indonesia, the number of cases up to the same date reached 169,195 people. The global fatality rate of this disease until 29 August 2020 reached 841,832 people with a fatality rate of 5.00%. Meanwhile, in Indonesia, the number of deaths has reached 7,261. With a fatality rate of 4.29%.⁴

The main transmission of this disease is through respiratory droplets and close contact.⁵ This disease has a wide and varied clinical spectrum, ranging from asymptomatic, mild, moderate, severe, critical to fatal. The main clinical symptoms are respiratory system symptoms and fever. Respiratory symptoms are cough, runny nose, and shortness of breath. However, other symptoms that are not related to the respiratory tract can also occur, such as diarrhea, rash, and other systemic symptoms.^{1-3,6-7} Currently, the clinical proportion of patients with mild to moderate symptoms is 99% severe and 1% critical.⁴

Based on clinical and contact history, in Indonesia initially classified cases into contacted asymptomatic people, People under Monitoring, Patients under Supervision, and confirmed cases. However, it's been changed into suspected, probable, and confirmed.⁸ For medicinal purposes, they are divided into mild, moderate, and severe symptoms. Severe symptoms usually refer the patient to Acute Respiratory Disease Syndrome (ARDS) and a cytokine storm. These severe symptoms are more common in elderly patients or patients with cardiorespiratory or metabolic comorbidities.

This pandemic has changed the pattern of life habits, including health services. Currently, health services must be adapted to health protocols, including health services in obstetrics and gynecology. All of these protocols aim to reduce the risk of transmission of this disease. Therefore, it is necessary to study further gynecological examinations during this pandemic

CLINICAL EXAMINATION DURING COVID-19 PANDEMIC

Clinical examination during a pandemic must pay attention to universal and hierarchical precautions, aseptic standards, and sterile techniques. The standard aims to minimize nosocomial infections from blood, body fluids, secretions, skin, and mucous membranes. Hierarchical precautions relate to contact precautions, spray, borne water, etc. Medical personnel should avoid contact without personal protective equipment (PPE).⁵

POGI's recommendation, PPE used in obstetric procedures is divided into levels 1, 2, and 3. Level 1 corresponds to routine PPE. PPE Level 2 is used by officers to work or on duty in the highest risk COVID-19 room. Meanwhile, health workers who take care of COVID-19 patients with PPE level 3.⁹ However, all protocols should be adjusted local standard.

GYNECOLOGICAL EXAMINATION

Principally, the gynecological examination is the same as examinations in other fields including history, physical examination, and investigations. The history includes personal data history, current medical history, complaints of micturition, bowel habit, menstrual history, previous obstetric and gynecological history, sexual history, previous medical history, family and social history.

The physical examination includes a general physical examination and a special gynecological examination. Gynecological examination, palpation of the abdomen, an inspection of the vulva, examination of the speculum, examination, wet mount, examination of bimanual palpation, the examination of rectovaginal, and examination of the breast. Palpation of the abdomen in gynecology includes inspection, the percussion of the four quadrants of the abdomen, and palpation. A vaginal inspection is performed before the speculum examination to check for skin lesions, hirsutism, scarring, vaginal discharge, edema, and prolapse. Speculum examination is carried out in the lithotomy position, with lubrication before the examination. Before this examination, it is important to know the patient's

previous sexual history. This examination allows a deeper examination of the reproductive organs to the cervix and portio.¹⁰

The wet mount examination mentioned before is taking a sample of the discharge followed by a microscope examination to identify the cause. Examinations may be obtained such as clue cells, trichomonas, sperm cells, or fungi. A vaginal bimanual examination was conducted to examine the cervix, uterus, and adnexa. The cervical examination assesses tenderness, consistency, mobility, or external os. Meanwhile, the uterus examination was conducted to define its axis, size, and consistency of the uterus. In adnexitis, it is necessary to check size, tenderness, and mobility. The rectovaginal examination is not always performed in every patient. This rectovaginal examination is performed on patients with suspicion of malignancy, endometriosis, or a process in the Douglas' cavity.¹⁰

Examination of the breasts is carried out in two stages, namely inspection and palpation. Inspection tests such as symmetry, location, visible tumor, and changes in the skin. While palpation consists of palpation of lymph nodes and breasts. Palpation of lymph nodes examines cervical, supraclavicular, infraclavicular, axillar, and parasternal lymph nodes. Palpate the breast according to the four quadrants of the breast. All these gynecological physical examinations must pay attention to aspects of patient privacy.¹⁰

The investigation is often the ultrasound examination (USG). This ultrasound examination can be performed transabdominal or transvaginally. The transabdominal examination was performed in a supine position in a full bladder. Meanwhile, a transvaginal ultrasound is performed in a position like a speculum examination. Breast ultrasound is also performed in a supine position with the arm pulled back from the neck. Other tests include laboratory tests such as complete blood count, urinalysis, urea and creatinine, and pregnancy tests.¹⁰

GYNECOLOGICAL EXAMINATION DURING THE COVID-19 PANDEMIC

The special protocol for gynecological examinations during the Covid-19 pandemic was limited because it was adjusted to local protocols. One model of examination approach in gynecology is gynecological cancer. This approach is following Figure 3. In this approach, patients are differentiated into patients who have not been diagnosed but suspect patients with malignancy, have been diagnosed and need treatment, in treatment and cancer survivors. In patients with suspicion of malignancy, diagnostic work-up is still carried out by observing health protocols or remote consultation. Whereas for patients who have been diagnosed, remote consultations can be done, or face to face with health protocols. The same is true of patients who are on treatment and cancer survivors with the principle of long-distance or face-to-face consultation if needed with the medical protocol.

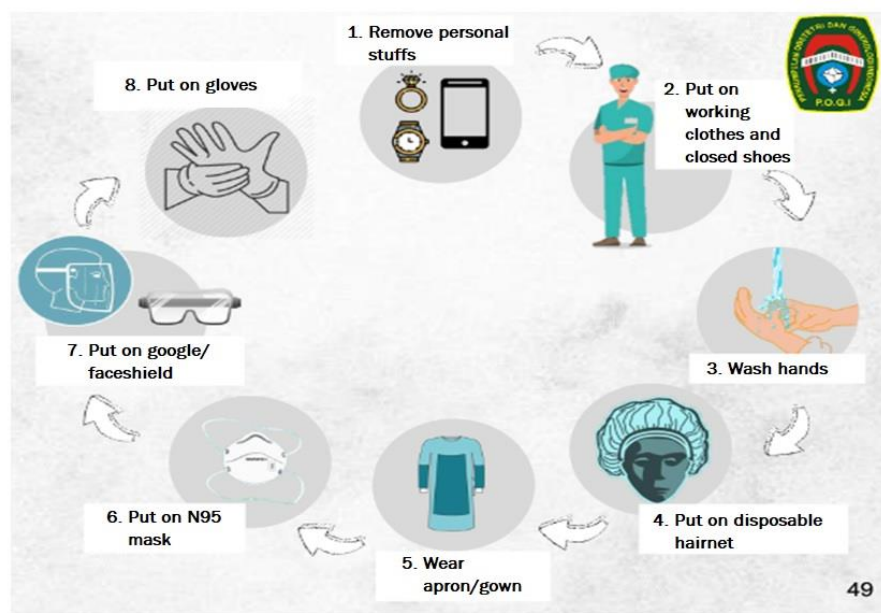


Figure 1. Level 2 PPE and procedure to use.⁹



Figure 2. Level 3 PPE and procedure to use.⁹

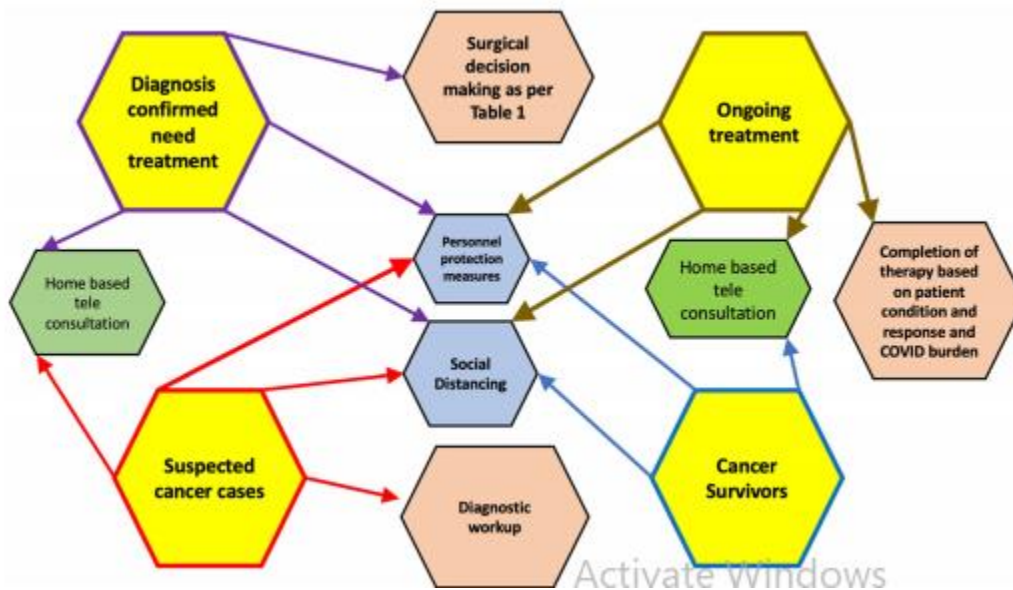


Figure 3. Examination approach model on gynecological cancer.¹¹

In patients undergoing face-to-face examinations, screening is necessary before the examination. Screening is carried out by identifying symptoms associated with COVID-19 such as fever, cough, shortness of breath, chills, headache, sore throat, anosmia, weakness, muscle pain, runny nose, nausea, and vomiting,

diarrhea, or a history of exposure to a positive patient. If there are no such symptoms, a routine check-up is carried out, with health protocols of course. However, if there are any of these symptoms or history, then proceed with an assessment of its severity. Patients with high risk, do emergency management in the ER or an

equivalent room that has been set. However, if it is not high risk, it is followed by clinical and social risk assessment. The moderate risk with complications or respiratory problems can be treated as high risk, while moderate risk without complications or respiratory problems can be done outpatient as well as low risk. The risk assessment algorithm is following Figure 4.^{5,12}

Ultrasound examination in gynecology is one of the risky measures because the examination distance is usually less than 2 meters, the room is usually small, lacks ventilation, often uses air-conditioning, the examination is quite long, about 10-60 minutes, often tells the patient to inhale and exhale deeply. Therapeutic procedures increase the risk of exposure to body fluids, the risk when the patient cough sneezes, or breathes, and the risk of exposure to machines. Therefore, several things must be considered, namely triage, room arrangement, and patients. Triage is carried out to determine the priority of the examination. Suitable room ventilation or the use of high-efficiency particulate air (HEPA) filters in combination with the use of PPE and masks are good ways to reduce the risk of transmission. Meanwhile, the patient needs to do a temperature check and ask for TOCC (travel, occupation, contact, and cluster). The use of masks on patients is also very important and must be considered.¹³

Risk factors for ultrasound providers also need to be considered. Providers who are elderly or with

comorbidities should not perform ultrasound examinations on suspected or confirmed patients and must wear complete PPE in local transmission areas even though it is asymptomatic and there is no history of TOCC. The age limit used is 60 years. Meanwhile, comorbidities include hypertension, diabetes mellitus, cardiovascular disease, chronic lung disease, and cancer. ISUOG recommendations are in Table 1.¹³

In reducing contact and establishing a priority scale for examinations, IUSOG divides the examination into "now", "soon", or "later". Examinations that must be done now (now) such as acute pelvic pain, suspicious ovarian torsion, rupture of ovarian cysts, PID or tubo-ovarian abscess, postoperative complications, ovarian hyperstimulation syndrome, symptomatic abdominopelvic period, abnormal uterine bleeding (AUB) such as menorrhagia with anemia or hemodynamic instability. The soon category is an examination that can be delayed by 2-4 weeks. These categories include AUB such as postmenopausal bleeding and bleeding after coitus, abdominopelvic mass with a high risk of malignancy, ultrasound staging for biopsy, recurrent gynecological malignancies.¹⁴

Apart from the above, it is necessary to pay attention to SARS-CoV-2 on dry inanimate objects which can last 48-96 hours. So that the room should be cleaned with a low-level disinfectant every day including the tools and linens, bedding, and towels used during the inspection.¹⁵

Table 1. PPE use base on symptoms, TOCC and local transmission.¹³

PPE	<i>Asymptomatic and TOCC negative</i>	<i>Asymptomatic and TOCC positive</i>	<i>Suspected*/probable/confirmed COVID-19 or where there is widespread community transmission</i>
Clothing	Dedicated work clothes	Dedicated work clothes	Dedicated work clothes
Hand hygiene	Yes	Yes	Yes
Surgical facemask	Yes†	Respirator (N95, FFP2/3)‡	Respirator (N95, FFP2/3)‡
Respirator	No	Yes (N95, FFP2/3)‡	Yes (N95, FFP2/3)‡
Isolation gown	No	Disposable fluid-resistant and impermeable protective gown (e.g. AAMI level 3)	Disposable fluid-resistant and impermeable protective gown (e.g. AAMI level 3)
Disposable gloves	Yes	Yes (two pairs)	Yes (two pairs)
Eye protection	No	Goggles or face shield	Goggles or face shield
Hair cover	No	Yes	Yes
Additional consideration for transvaginal scan or invasive procedures	Standard condom or commercial transducer cover ²⁵	Standard condom or commercial transducer cover; cover for cable if available ²⁵	Standard condom or commercial transducer cover; cover for cable if available ²⁵
Staffing/environment	—	—	Ideally scan at bedside rather than in a clinic; minimize number of staff in room and ensure that most senior person is undertaking scan
Disinfection/cleaning ²⁶	Low-level disinfection for external probes; high-level disinfection for internal probes	Low-level disinfection for external probes; high-level disinfection for internal probes; additional low-level disinfection for ultrasound machine and cables	Low-level disinfection for external probes; high-level disinfection for internal probes; additional low-level disinfection for ultrasound machine and cables

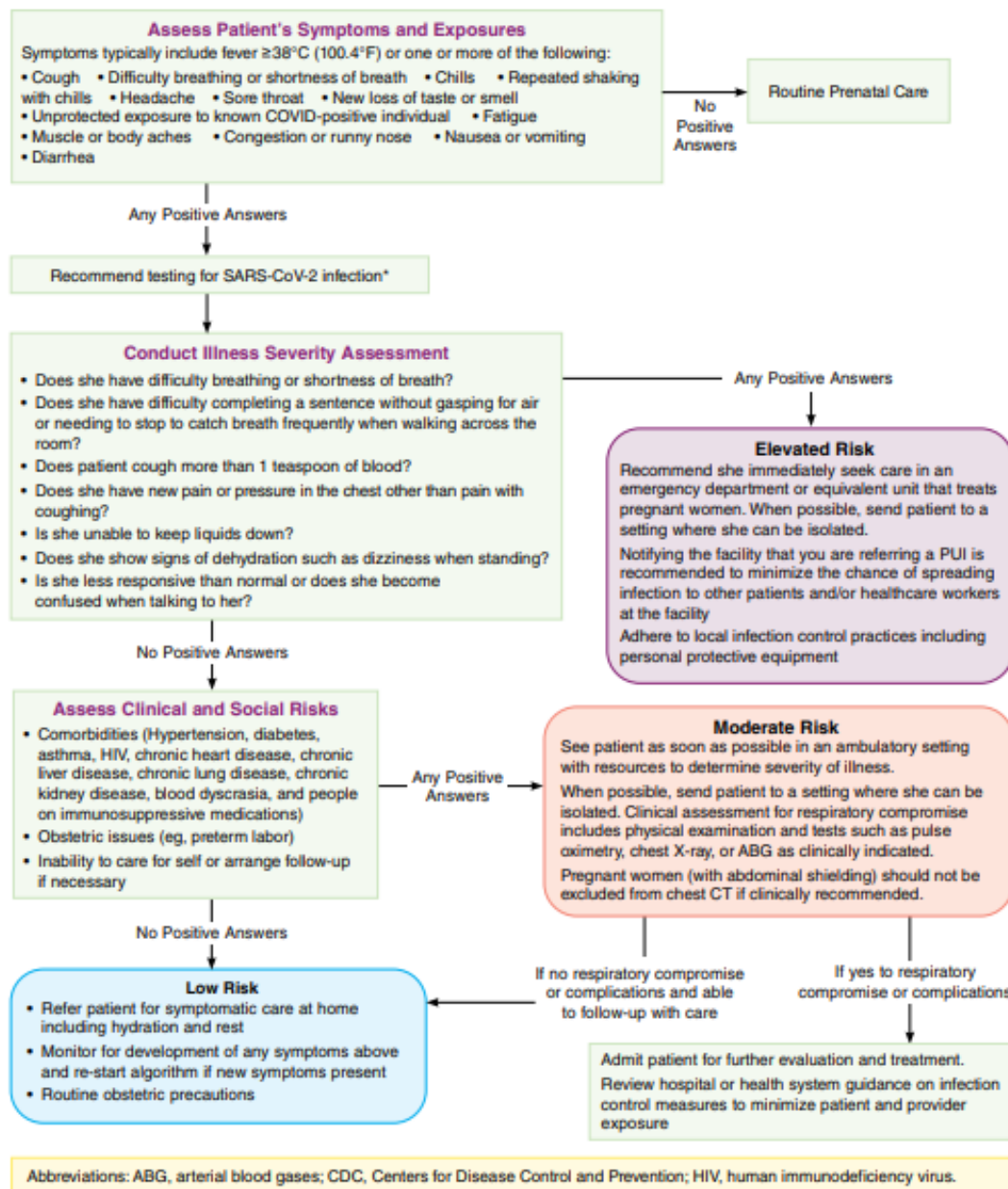


Figure 4. Algorithm of outpatient examination with suspected COVID-19.¹⁷

Based on the above reviews, gynecological examinations during a pandemic can be carried out by taking into account the need for direct (face-to-face) examinations. If necessary, this should be done with due observance of health protocols. Initial screening is based on low/medium/high-risk principles to determine where the procedure is performed. The principle of the ultrasound examination is also carried out by paying attention to TOCC and local transmissions as well as triage based on the examination findings. The condition of the provider and the room must also be considered. A

physical examination in the field of gynecology may also be better performed using these principles.¹¹⁻¹⁴

GYNECOLOGICAL CASE COUNSELING DURING THE COVID-19 PANDEMIC

Patient counseling that will be discussed is the substance of counseling which consists of general and gynecological counseling as well as the telemedicine method. General counseling under WHO guidelines

includes counseling on visit restrictions, transmission routes and prevention, use of masks, hand hygiene, and the environment. Explain the reasons for visit restrictions and the use of masks when entering the room. Transmission routes by direct contact and droplet respiration, incubation 1–4 days, and symptoms are common. The use of masks includes how to use the correct mask and the type of mask according to the circumstances. Keep your hands clean with 7 steps to wash your hands and 5 moments. While the environment includes ventilation and avoiding crowds.⁵ Counseling regarding the introduction and education of emergencies in patients is very important. In gynecological cases, it should be differentiated based on case priority (triage) as in ultrasound examination.¹⁴

Telemedicine is a long-distance method that can be used for counseling during a pandemic. Telemedicine in question is online consultation by telephone or videoconference, telemonitoring/screening using devices used to collect, transform, and evaluate patient data such as blood pressure, respiration, oxygenation, and patient symptoms; use of sensors for GPS for tracing, and Chatbots. Telemedicine is cheaper and reduces the cost of using antiseptics and PPE, is easily accessible, coordinates patient location, and reduces the risk of exposure.⁵

In gynecological cases, Grimes et al. have made recommendations for gynecological cases. Some of the gynecological cases discussed on these recommendations are AUB, chronic pelvic disease and endometriosis, infection and vaginal discharge, and postoperative care. Each case has a different focus on telemedicine counseling. In this recommendation, there are also lengths which are questions and answers that are often asked by patients.¹⁶

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