**Genital Ulcer Diagnostic and Empirical Treatment Application (GUDET): User Scenarios**

These two scenarios demonstrate how doctors can apply the approach to managing patients with genital ulcers, ensuring appropriate care based on geographical location, available resources, and patient history.

**Case 1: Urban United States - Young Adult Male with Multiple Sexual Partners**

**Изображение выглядит как человек, в помещении, одежда, работа

Автоматически созданное описаниеUser:** Smith M.D. is a physician at a busy sexual health clinic in San Francisco.

**User Story:** As a doctor in an urban clinic in the United States, I want to conduct a thorough evaluation and provide appropriate treatment for young adult male patients with genital ulcers to ensure quick recovery and prevent the transmission of sexually transmitted infections (STIs).

**Scenario:** Dr. Smith is a physician at a busy sexual health clinic in San Francisco. A 24-year-old male named John presents with painful genital sores. John has had multiple sexual partners over the past few months, including both men and women, and has used barrier protection inconsistently.

1. **Initial Consultation:**

* Dr. Smith takes a detailed sexual history from John, including the number of partners, types of sexual activities, and any known STI exposures.
* Dr. Smith conducts a physical examination, noting the number, appearance, and characteristics of the ulcers.

1. **Diagnostic Testing:**

* Dr. Smith orders tests for common STIs, including herpes simplex virus (HSV), syphilis, and HIV.
* Given John’s sexual history, according to GUDET suggestion Dr. Smith also orders additional testing for gonorrhea and chlamydia.
* While answering GUDET's questions, the doctor also reviews information on the appearance of HSV that is similar to the patient's clinical presentation

1. **Empiric Treatment:**

* Based on the clinical presentation and John’s sexual history, and GUDETs evaluation Dr. Smith starts John on empirical treatment for possible HSV. The active ingredient and dosage, he also sees in the GUDET.
* Dr. Smith advises John to notify recent sexual partners and abstain from sexual activity until follow-up.

1. **Follow-Up:**

* John returns to the clinic one week later. His symptoms have improved, confirming the HSV diagnosis.
* The other test results results are negative, but Dr. Smith advises John to repeat the test in a few weeks to rule out early infection.
* Dr. Smith provides counseling on safe sex practices and the importance of regular STI screenings.

**Pain Points:**

1. **Time Constraints:** Dr. Smith has a busy schedule with limited time for each patient.

**Solution:** The GUDET’s structured desicion tree with closed questions, saving Dr. Smith valuable time.

1. **Diagnostic Delays:** Waiting for diagnostic test results can delay definitive treatment and allows for the possible further transmission of sexually transmitted infections (STIs).

**Solution:** The application helps to prescribe empirical treatment in settings where basic diagnosis is time-consuming and there is a risk that the patient may not come back for a second visit

**Case 2: Rural Sub-Saharan Africa - Young Female with Limited Access to Healthcare**

**Изображение выглядит как человек, в помещении, одежда, Человеческое лицо

Автоматически созданное описаниеUser:** Dr. Ndiritu is a physician at a rural health clinic in Kenya.

**User Story:** As a doctor in a rural health clinic in Sub-Saharan Africa, I need to provide accessible and effective medical care for patients with genital ulcers despite limited healthcare resources to ensure proper diagnosis and treatment.

**Scenario:** Dr. Ndiritu is a physician at a rural health clinic in Kenya. A 19-year-old woman named Amina presents with genital sores. Access to advanced diagnostic tools and rapid tests is limited.

1. **Initial Consultation:**

* Dr. Ndiritu listens to Amina's description of her symptoms and takes a brief sexual history.
* Dr. Ndiritu performs a physical examination, noting the presence of multiple ulcers and inguinal lymphadenopathy.

1. **Diagnostic Testing:**

* Based on clinical presentation and local epidemiology, Ndiritu suspects chancroid or lymphogranuloma venereum (LGV) she uses GUDET App to support her decision
* According to the Apps suggestion, Dr. Ndiritu performs basic tests, including a visual examination and a rapid syphilis test (that are limited in the clinic and need to be used wisely), that is negative.
* Also based on Apps Dr. Ndiritu orders basic test not only for common STIs but also for LGV.

1. **Empiric Treatment:**

* With GUDET support Dr. Ndiritu empirically treats Amina doxycycline for potential LGV.
* Amina is advised to return if her symptoms do not improve or if they worsen.
* Dr. Ndiritu encourages Amina to inform her recent sexual partner about the need for testing and treatment and abstain from sexual activity until follow-up.

1. **Follow-Up:**

* Amina returns to the clinic after two weeks with significantly improved symptoms, confirming the initial diagnosis.
* A day after, the doctor receives Amina's test results, which confirm the diagnosis.
* Dr. Ndiritu educates Amina on sexual health and the importance of using protection to prevent STIs.

**Pain Points:**

 **Limited Diagnostic Resources:**  Lack of advanced diagnostic tools and laboratory facilities.

**Solution:** GUD helps to use diagnostic tools in legitimate situation resource efficient.

 **Resource Constraints:** Limited availability of medications and medical supplies. This can affect the ability to provide comprehensive treatment, requiring the doctor to make difficult decisions about prioritizing care.

**Solution:** GUD provides basical and efficeint treatment strategy.

 **The patient's limited budget:**

**Solution:** The application suggests cost-effective science approved treatment options.

 **Diagnostic Delays and Trustworthy:**

**Solution:** offers guidance on empiric treatments when diagnostic delays are unavoidable.