



*Training course in sexually transmitted infections, HIV/AIDS 2018*

# *Controlling STIs: synergies between prevention and care*

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## ***Objectives of an STI programme***

- **interrupt the transmission of infection;**
- **prevent development of complications and sequelae;**
- **reduce the risk of HIV infection.**

# Control of sexually transmitted infections

- Is feasible
- Leads to improved sexual and reproductive health
- Contributes to preventing HIV transmission

# How STIs disseminate?

Basic Reproductive  
rate



$$R_0 = B \times c \times D$$

Transmission  
efficiency



Rate of  
sex partner  
change



Duration  
of  
infectiousness



# How to impact STIs ?

**R<sub>0</sub>**      Decreasing reproduction rate !

=

**B**      Barriers, AM and vaccines

*Enhance resistance and reduce susceptibility*

x

**C**      Behavioural interventions

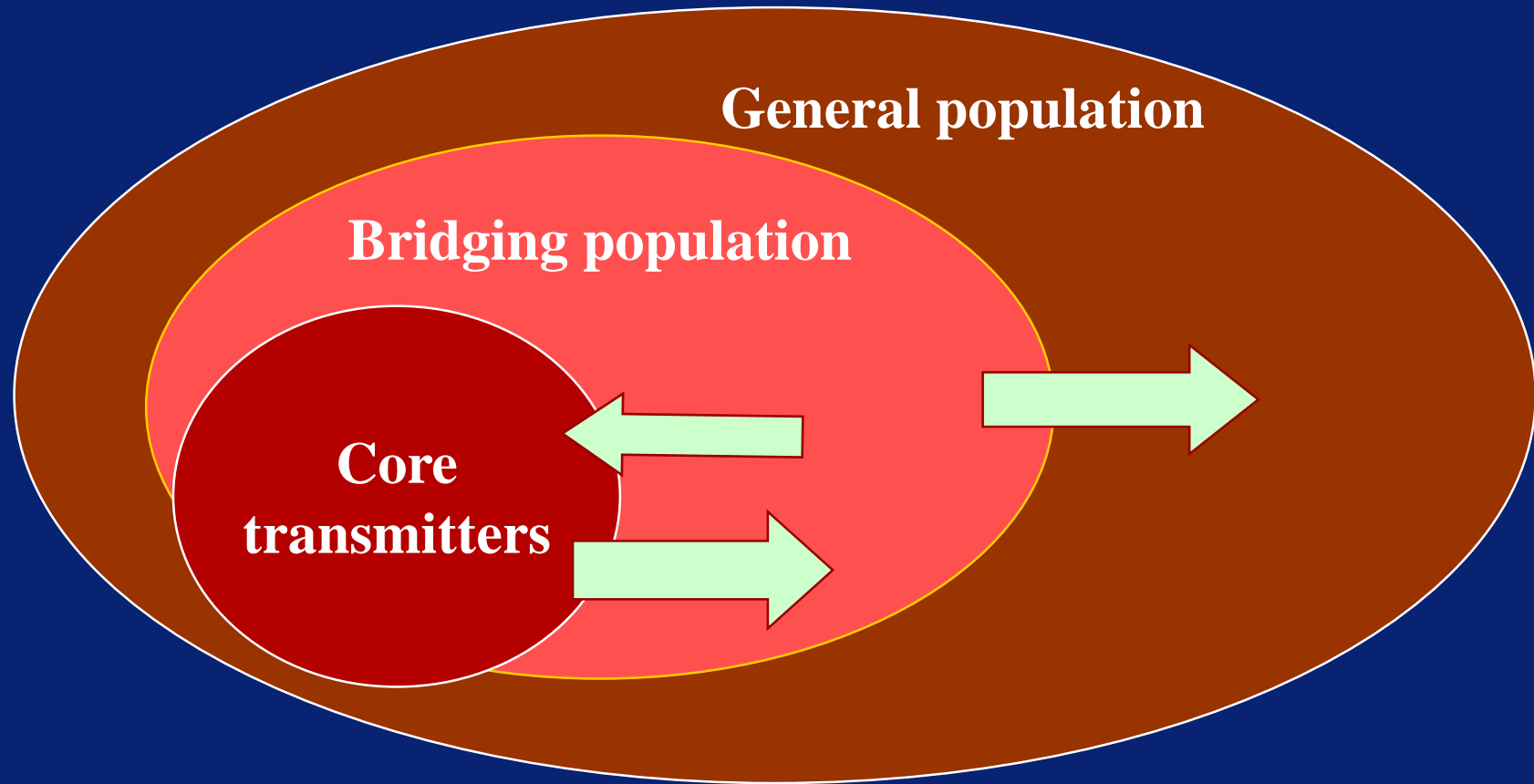
*Reduction of number of sexual partners*

x

**D**      Case management and finding, screening, selected mass treatment, promotion of HCSB

*Shorten duration of infection*

# *STI transmission dynamics at population level*





# Sexually Transmitted Infections



**Symptomatic**



**Asymptomatic**

# STIs are Preventable



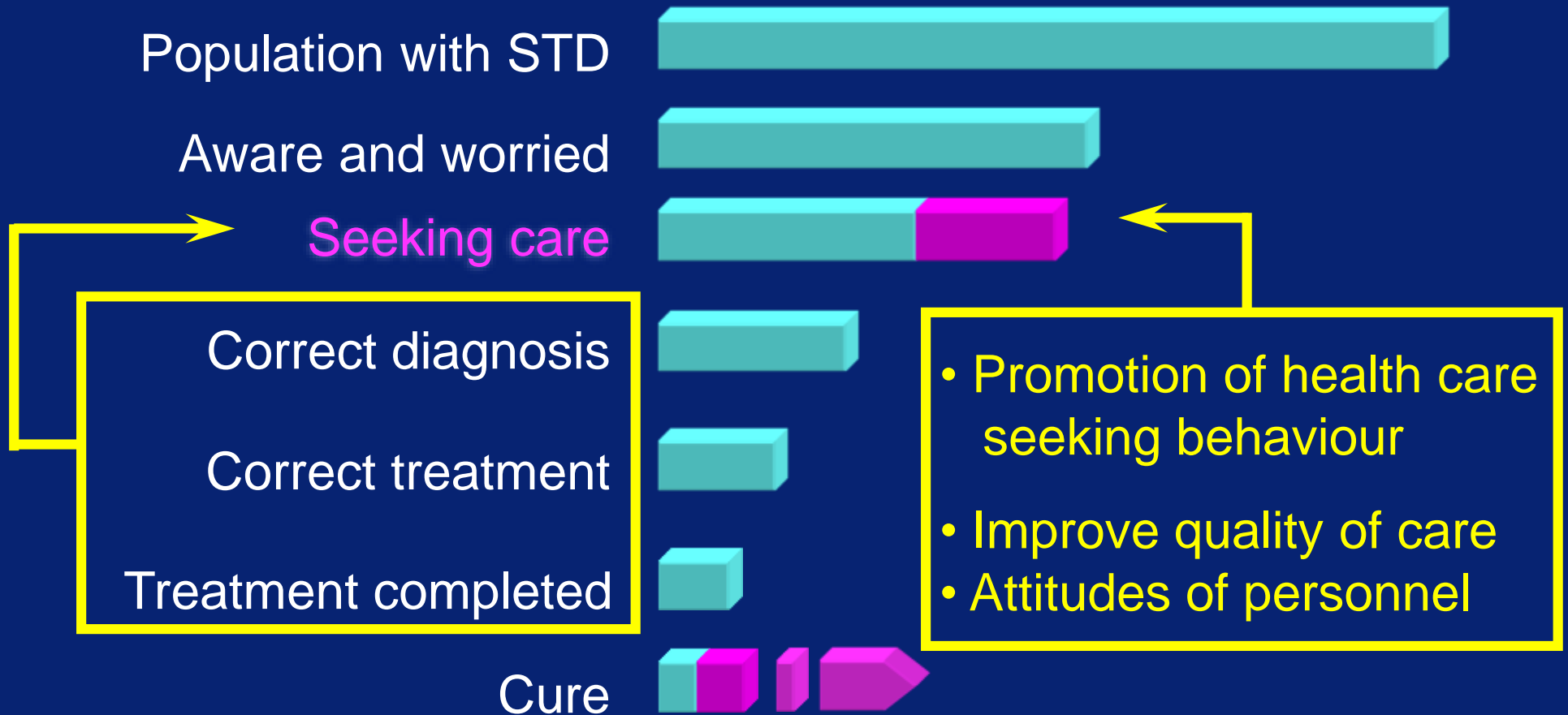
- **When used properly and consistently, condoms are one of the most effective methods of protection against STIs, including HIV infection.**
- **Although the female condom is effective and safe, it is not as widely used in national programmes because of its higher cost when compared to male condoms.**



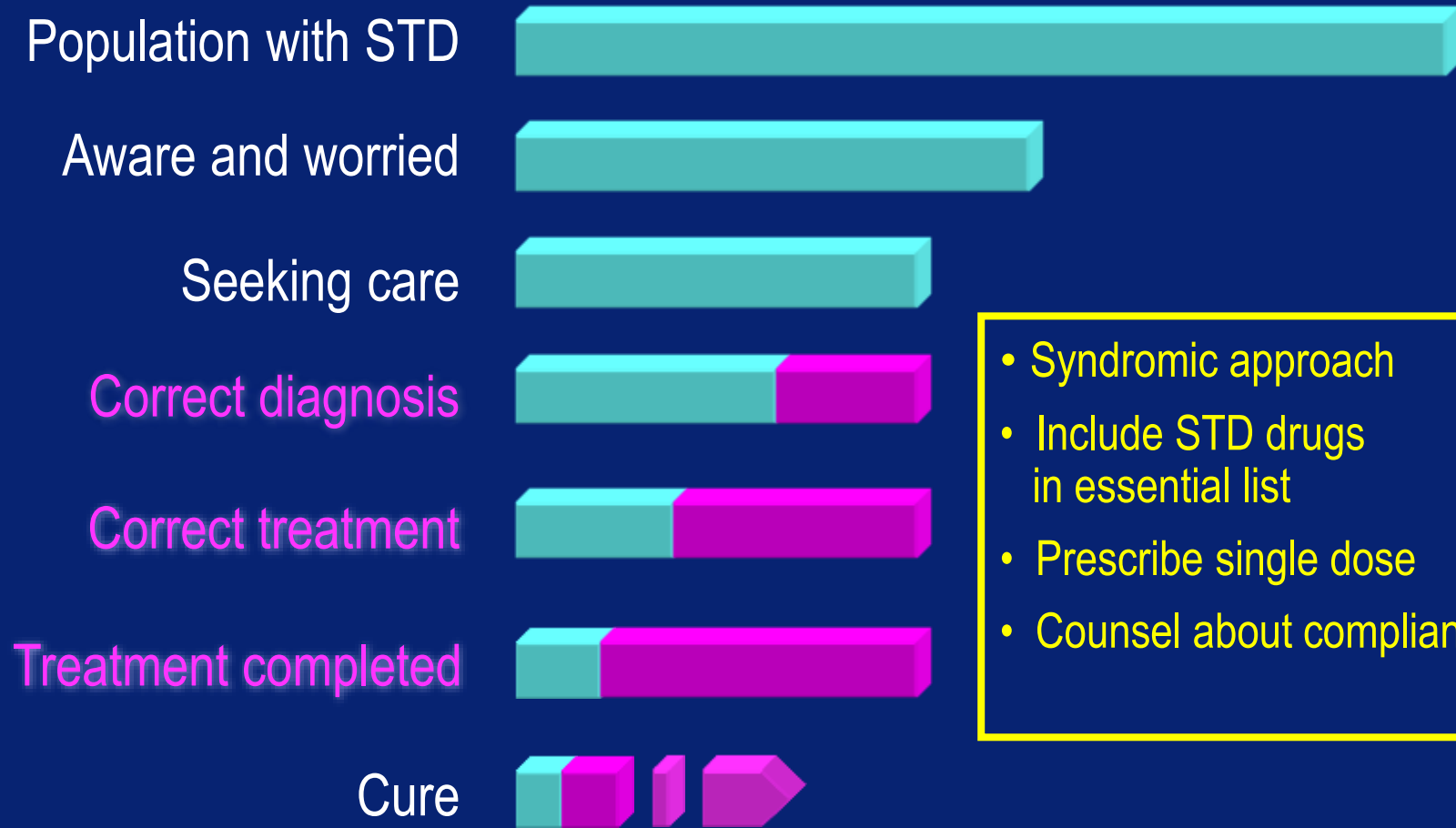
# Operational model of the role of health services in STD case management



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- Syndromic approach
- Include STD drugs in essential list
- Prescribe single dose
- Counsel about compliance

# Operational model of the role of health services in STD case management





# Guidance in the Context of Health Services and STI Management

General population

Selective mass treatment

Population with STI

Symptomatic

Asymptomatic

Partner notification, Case finding, Screening

Seeking care

Correct diagnosis

Correct treatment

Treatment completed

Cure

- Promotion of health-care seeking behaviour
- Improve quality of care
- Attitudes of personnel

# The Public Health Approach to STD Control

- promoting safer sex behaviour
- strengthening condom programming
- promoting health-care-seeking behaviour integrating STI control into PHC and other health care services
- providing specific services for populations at increased risk
- comprehensive management of symptomatic cases, using the syndromic approach
- prevention and care of congenital syphilis and neonatal conjunctivitis
- early detection of asymptomatic infections through partner notification and screening programmes

# HIV/STI synergy in prevention

- **Sexual transmission: behaviour change, Condoms, STI control, circumcision**
- **Mother to child transmission**
- **Injecting drug use**
- **Positive prevention for people living with HIV/AIDS**
- **Health care settings incl. blood safety**



**STI treatment is treatment for prevention**



# Impacting STIs dissemination

Basic Reproductive  
rate

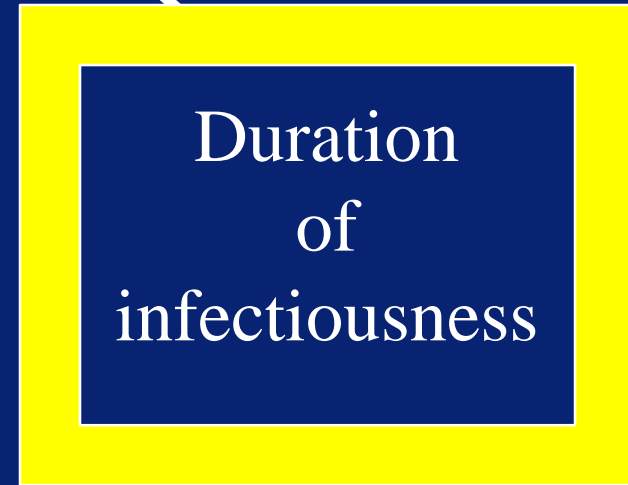
$$R_0 = B \times c \times D$$

Transmission  
efficiency

Rate of  
sex partner  
change

*Treatment*

Duration  
of  
infectiousness



# Clinical Diagnosis Approach

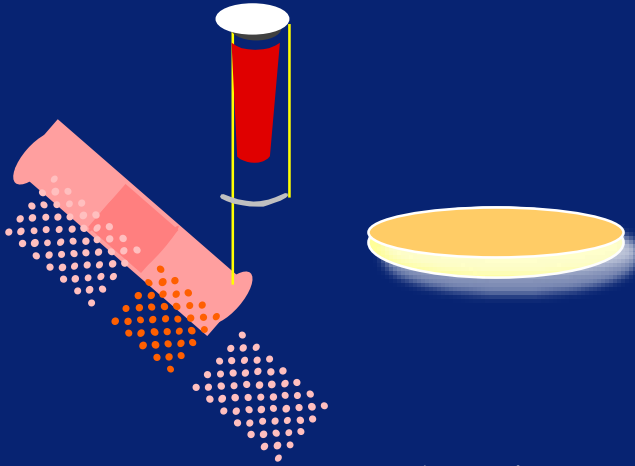
*Identify the STD causing symptoms  
based on clinical experience*



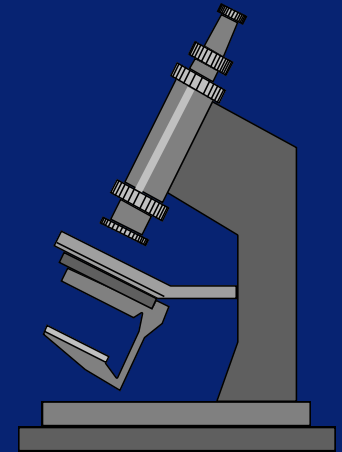
- even experienced STD providers often misdiagnose STDs
- miss mixed infections
- difficult for surveillance

# Etiologic Diagnosis Approach

*Identify the organism causing the symptoms  
with laboratory tests and microscopy*



- tests can be time consuming and expensive  
e.g. cultures cost \$12 - \$40 & take up to six days
- even rapid tests (RPR) require equipment to obtain  
and separate venous blood
- dependent technician & lab accuracy

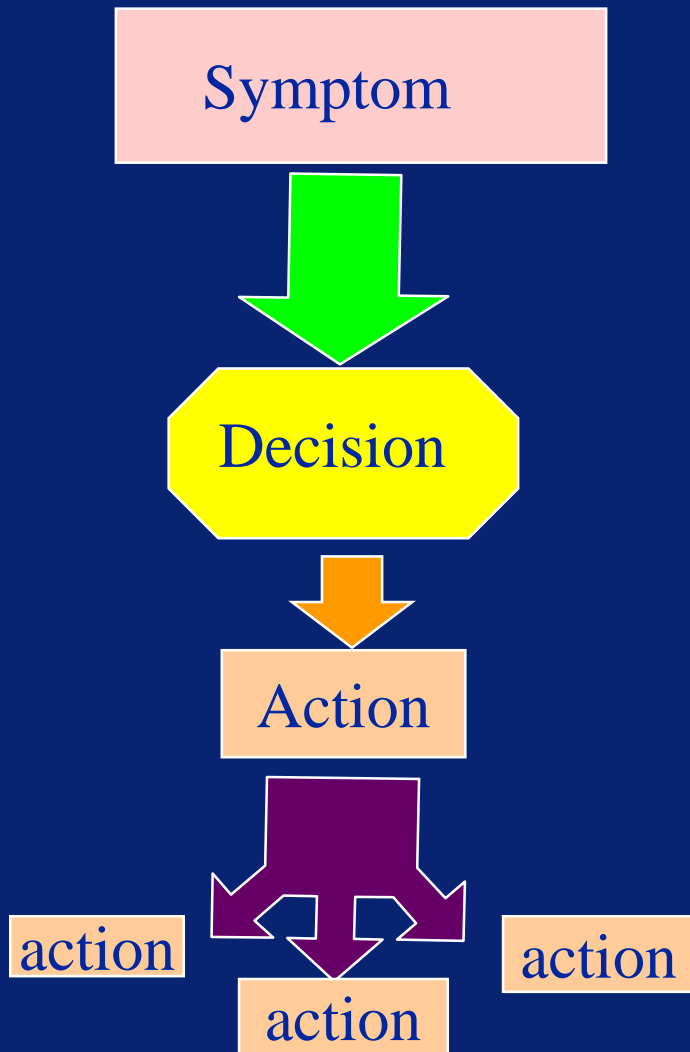


*New tests may  
change this!*

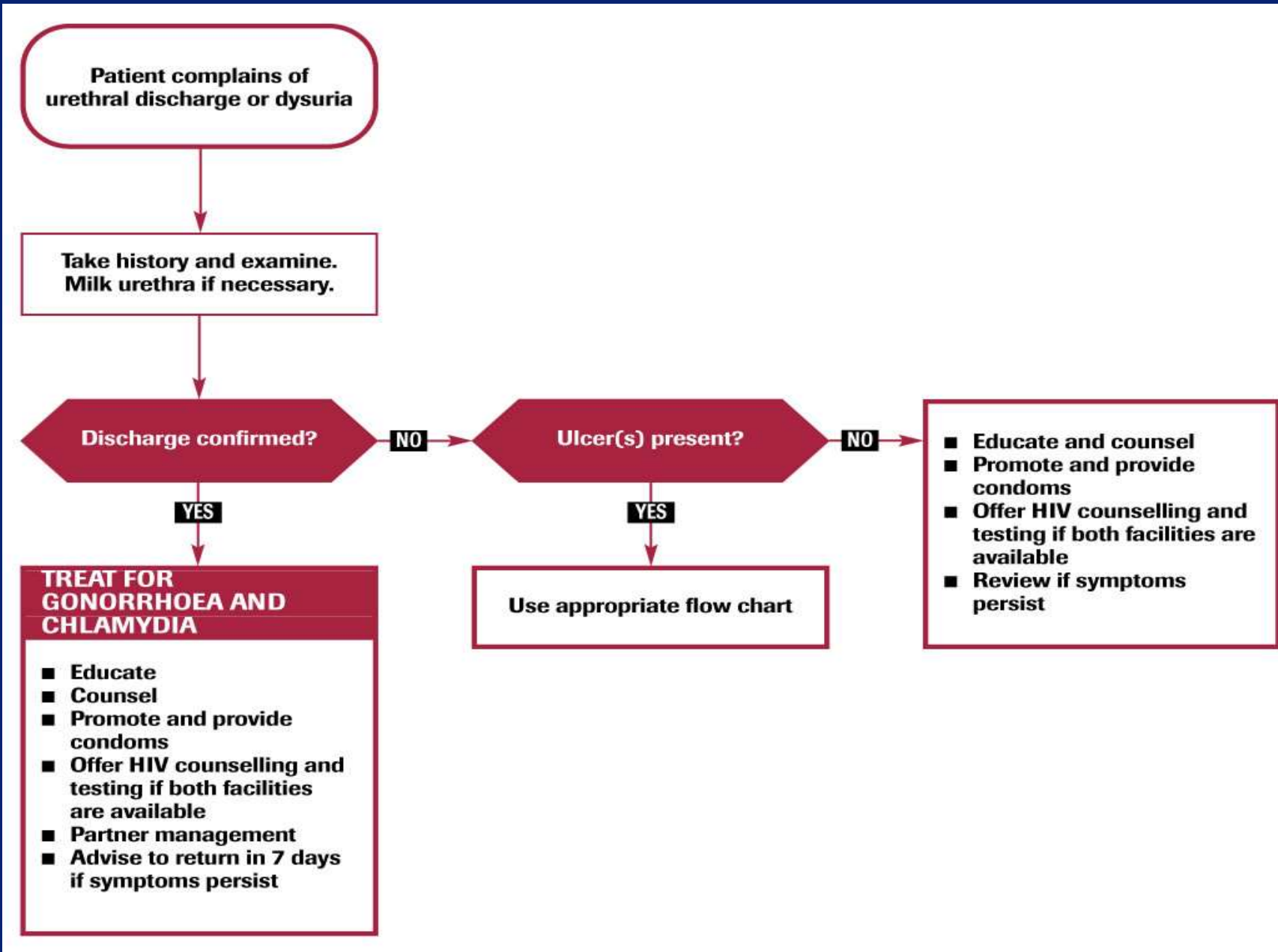
# Syndromic Diagnosis Approach

*Identify all possible STDs that could cause syndrome and give recommended treatment based on epidemiologic and laboratory data*

- Immediate treatment
  - decrease transmission
  - decrease complications
- Can do syndrome surveillance
- Need to weigh the ability to treat as many infected as possible (sensitivity) with the risks of overtreatment (specificity)
- resistance & stigma



# Example: Urethral discharge



# Criteria for selection of STI drugs

## Criteria for the selection of STI drugs

**Drugs selected for treating STI should meet the following criteria:**

- high efficacy (at least 95%)
- low cost
- acceptable toxicity and tolerance
- organism resistance unlikely to develop or likely to be delayed
- single dose
- oral administration
- not contraindicated for pregnant or lactating women.

**Appropriate drugs should be included in the national Essential Drugs list and in choosing drugs, consideration should be given to the capabilities and experience of health personnel.**

# Strategic areas of action

- Link HIV and STI prevention
- Improve access to quality STI care
- Promote early and effective health care seeking behaviour
- Target vulnerable populations