



Training Course in Sexual and Reproductive Health Research 2014

Module: Principles and Practice of Sexually Transmitted Infections Prevention and Care

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 ?

R₀ Decreasing reproduction rate !

=

B Barriers, AM and vaccines

Enhance resistance and reduce susceptibility

x

C Behavioural interventions

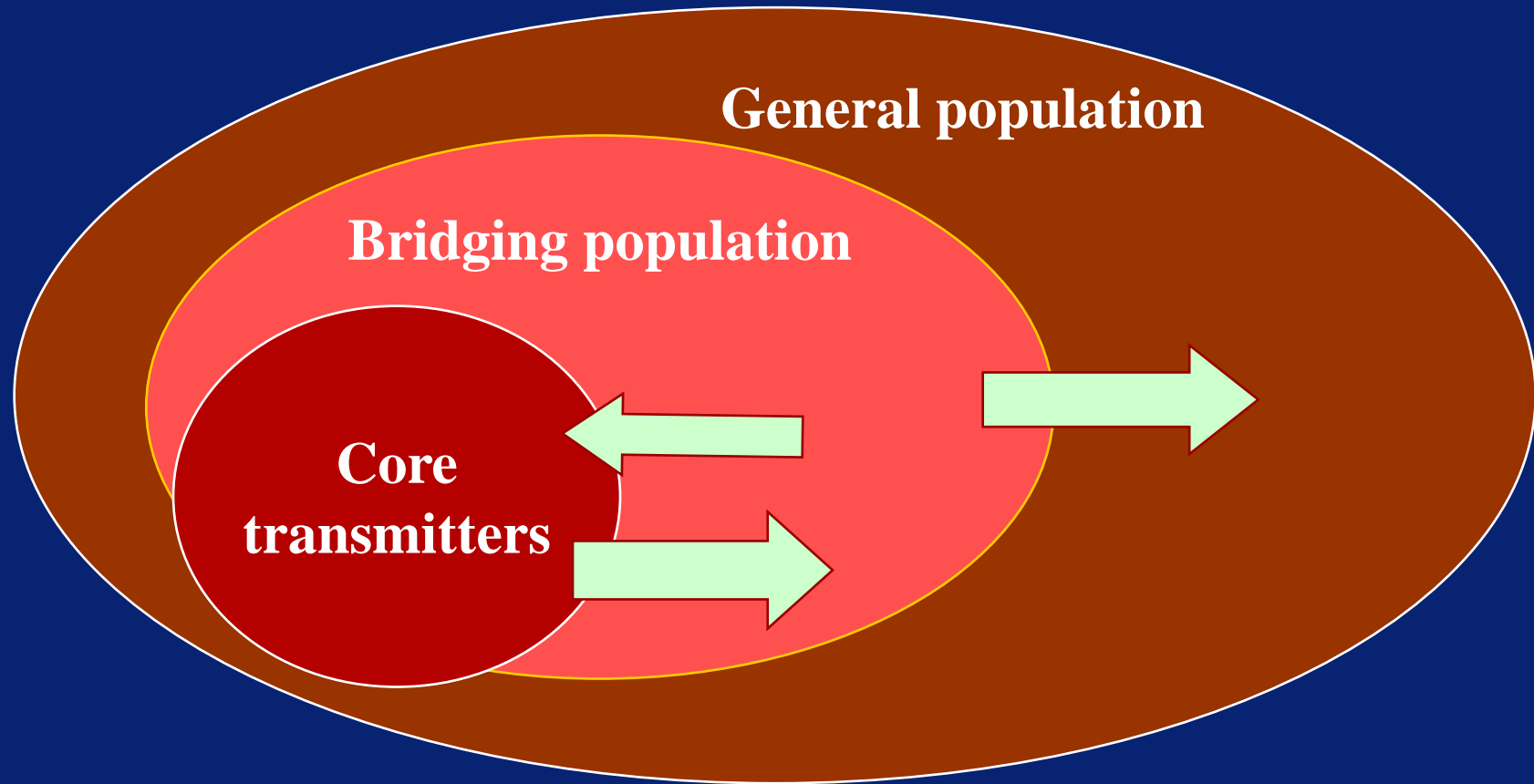
Reduction of number of sexual partners

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

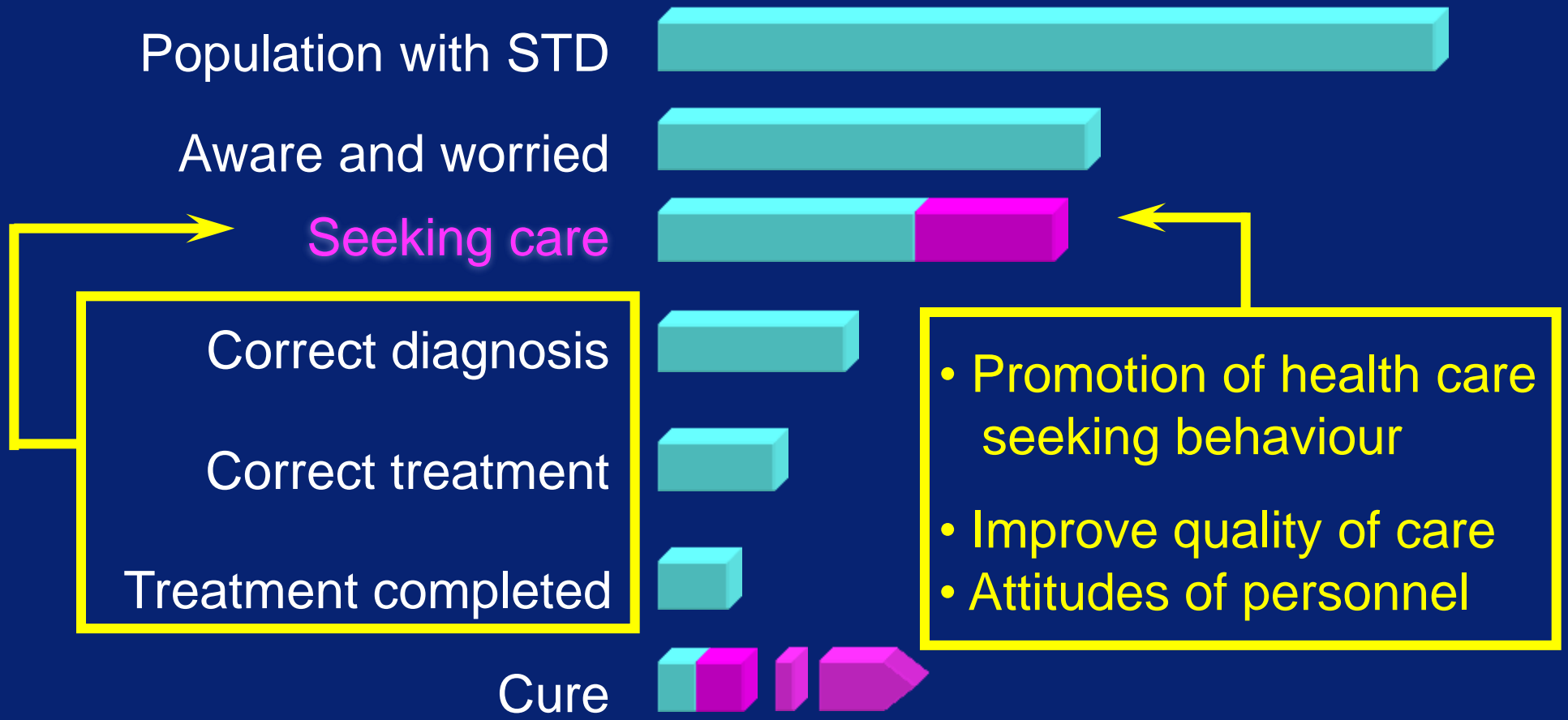


- **When used properly and consistently, condoms are one of the most effective methods of protection against STIs, including HIV infection.**
- **Although the female condom is effective and safe, it is not as widely used in national programmes because of its higher cost when compared to male condoms.**

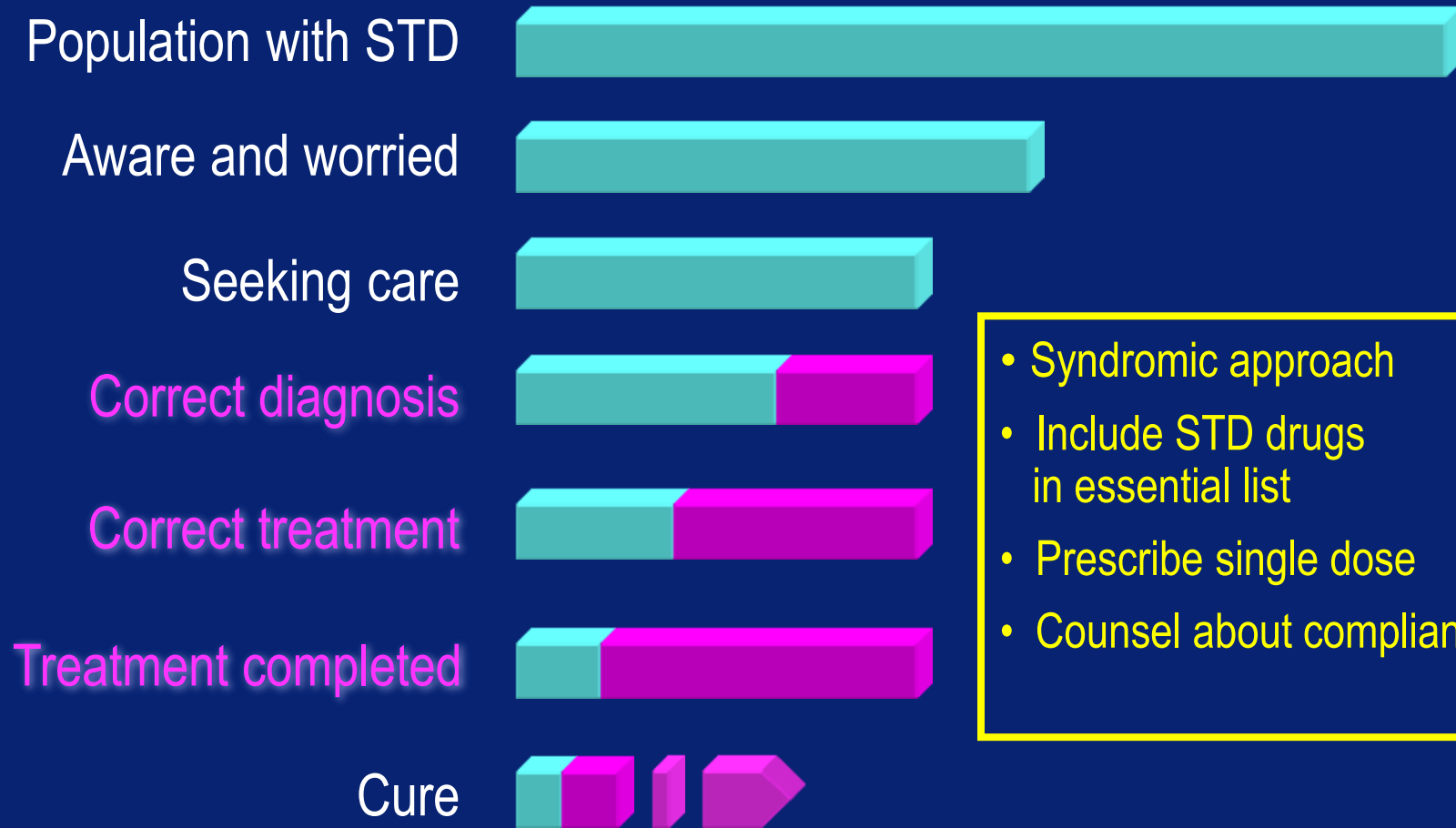
Operational model of the role of health services in STD case management



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



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



- 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



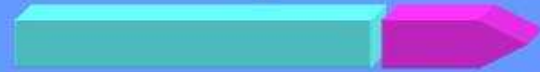
Selective mass treatment

Population with STI



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

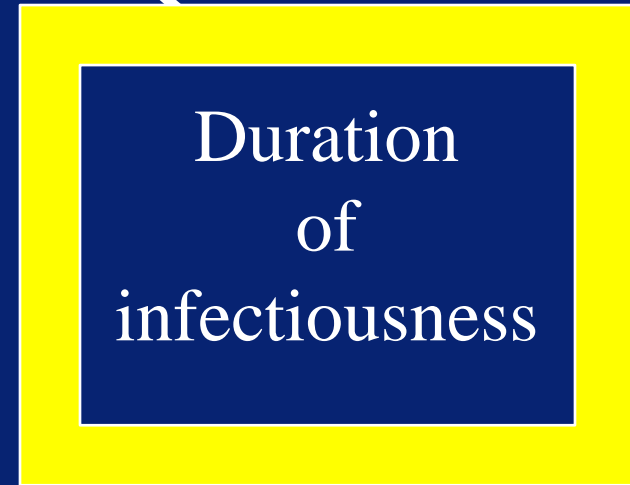
$$R_0 = B \times c \times D$$

Transmission
efficiency

Rate of
sex partner
change

Treatment

Duration
of
infectiousness



Clinical Diagnosis Approach

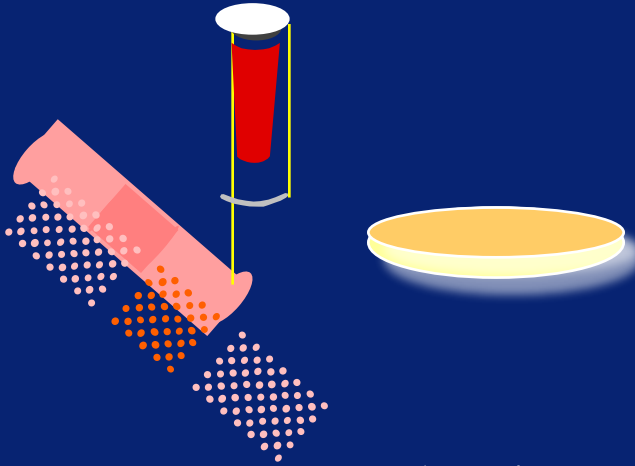
*Identify the STD causing symptoms
based on clinical experience*



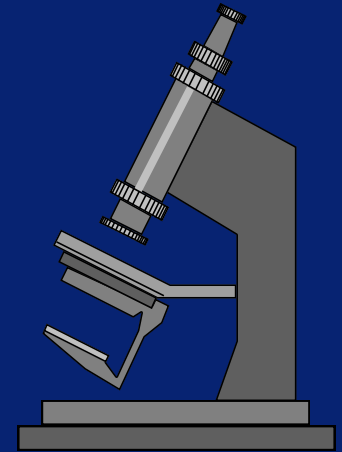
- even experienced STD providers often misdiagnose STDs
- miss mixed infections
- difficult for surveillance

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

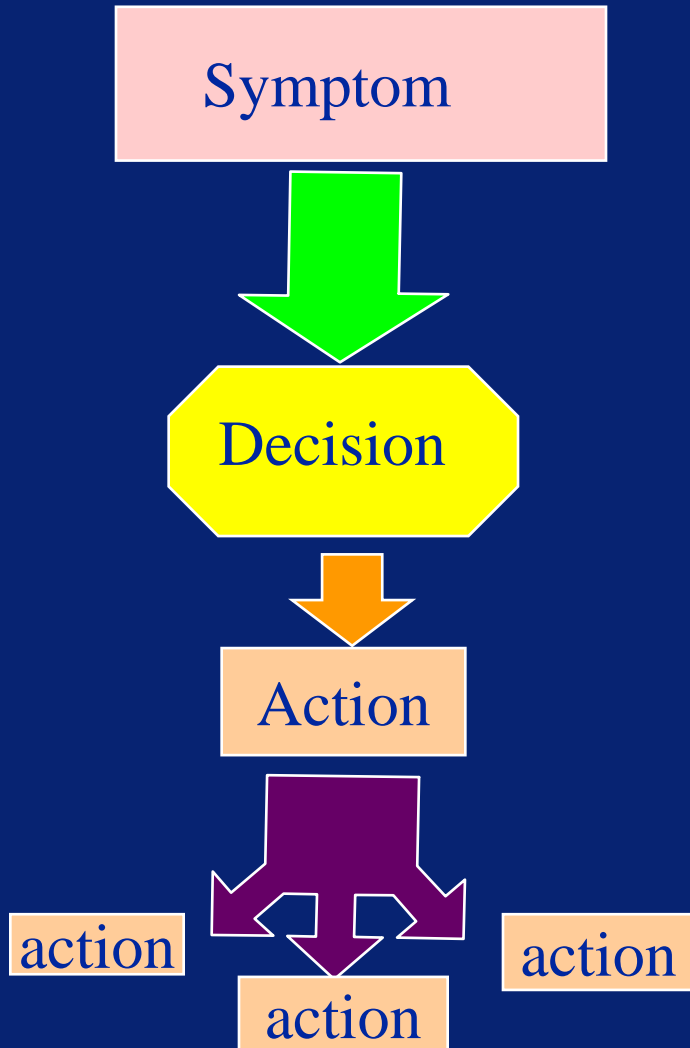


*New tests may
change this!*

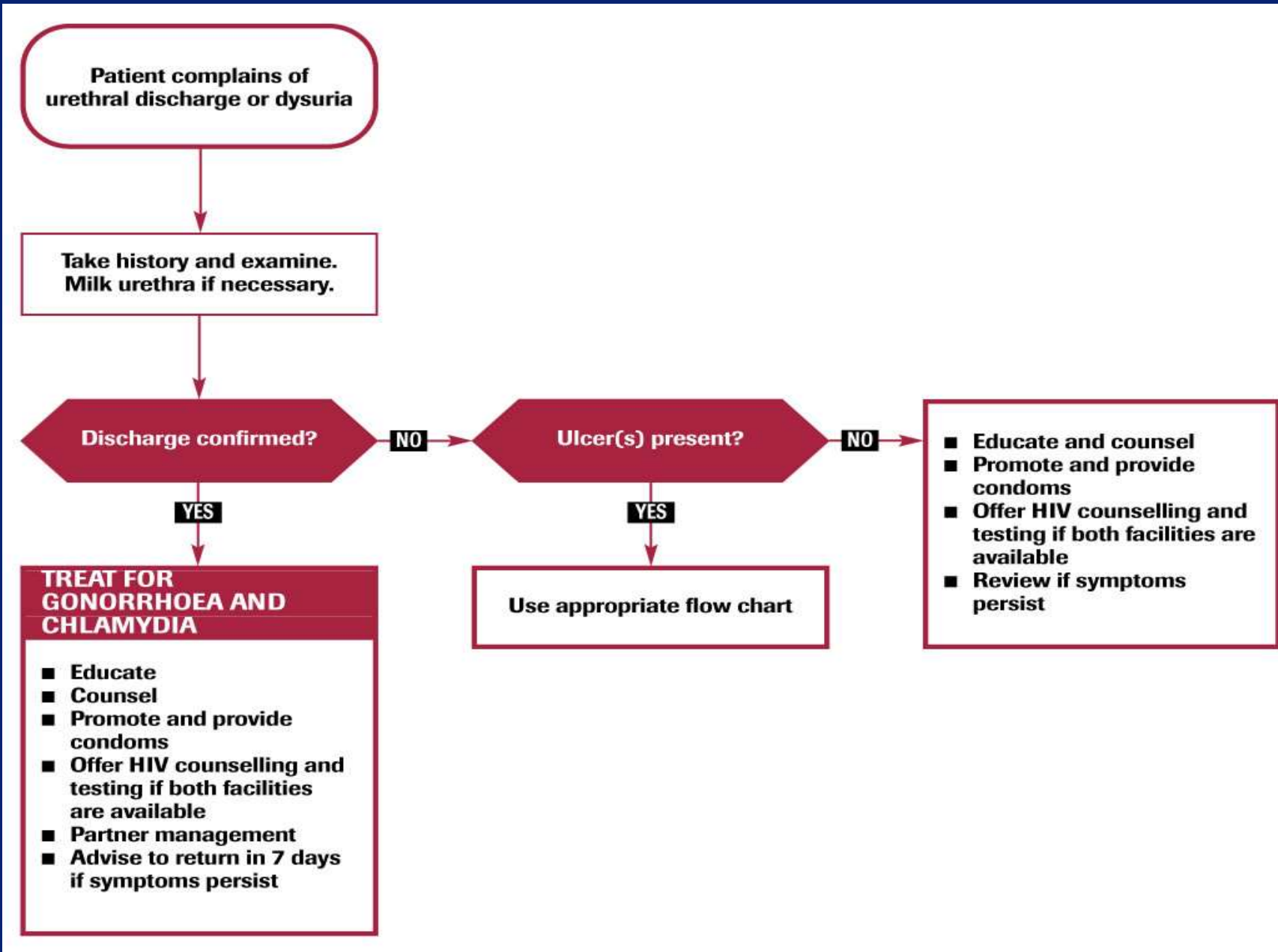
Syndromic Diagnosis Approach

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



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Thank you



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