

Syndrome-wise diagnosis status of sexually transmitted infection/RTI in a subdivision level hospital of rural West Bengal

Sir,

Sexually transmitted diseases (STDs) are a particular group of communicable diseases that are transmitted by sexual contact and caused by a wide range of bacterial, viral, protozoal and fungal agents, and ecto-parasites. In the last few years, scientific facts regarding STDs have undergone a dramatic transformation^[1] medical attention is now given not only to the specific diseases but also to the clinical syndromes associated with STDs.^[2] True incidence of STDs will never be known because of both inadequate reporting and secrecy surrounding the disease. WHO estimates that at least 340 million new cases of STD other than HIV occurred in 1990-2000.^[2,3] There is a dearth of information regarding the epidemiology of STDs in India for many reasons such as recent recognition of STDs as a major public health problem, stigma and discrimination associated with the STDs, lack of interdepartmental coordination for studies, poor attendance of STD patients at the public clinics and academic institutions, and availability of limited diagnostic facilities, among others. This in-depth clinical research offers an important insight into the burden and pattern of sexually transmitted infections (STIs) and on syndromic management of STIs. The traditional method of diagnosing STD is by laboratory tests. However, these are often not available or are expensive. Since 1990, WHO has recommended syndromic management of STDs in patients presenting with consistently recognized signs and symptoms of STD.^[3,4] The syndromic approach is a scientifically derived approach and offers accessible and immediate treatment that is efficient and very much cost effective. Furthermore, this particular approach is incorporated into the general health service. This can also avoid unnecessary referral, leaving the specialized part of health service free of unwanted load. NACP-III has a mandate to strengthen all public health facilities at and above the subdivision level as designated STI/ Reproductive tract infection, (RTI), Sexually transmitted infection/Reproductive tract infection clinics.^[4,5] Presently, National AIDS

Control Organisation, (NACO) is supporting 916 designated STI/RTI clinics that are providing services based on enhanced syndromic case management. NACO has branded the STI/RTI services as "Suraksha clinic" and has also generated a communication strategy for generating demand for their services.^[3]

This is a cross-sectional study. The protocol for implementation was developed and finalized after review by experts. In this study, we have extensively evaluated syndromic diagnosis status of patients approaching Out Patient Department (OPD) of one subdivision level Government Hospital catering mainly to the rural population of southern West Bengal. The study period was of one complete year starting from January 2010 to January 2011. The following syndromes were taken into account for diagnosis:^[3]

1. Vaginal/cervical discharge (VCD)
2. Genital ulcer discharge (non-herpetic/herpetic) [GUD (nh)/(h)]
3. Lower abdominal pain (LAP)
4. Urethral discharge (UD)
5. Anorectal discharge (ARD)
6. Inguinal bubo (IB)
7. Painful scrotal swelling (SS)
8. Genital warts (GW)
9. Other STI (O-STI)

Asymptomatic STI treatment (A-STI)

People living with HIV/AIDS who attended STI clinic (PLAHAS).

According to Tables 1 and 2 of our study, it is obvious that 52.4% cases presented with VCD and accordingly they were given treatment for vaginitis caused by *Trichomonas vaginalis* (TV), *Candida albicans* and *Mycoplasma* causing bacterial vaginosis, and cervicitis by *Neisseria. gonorrhoeae*, *Chlamydia. trachomatis*, *Trichomonas. vaginalis* and herpes simplex virus.^[3] GUD, Genital ulcer discharge syndrome, constituted 7.17% of all cases. Causative organisms here are *Treponema*.

Table 1: Syndrome wise diagnosis of STI from January 2010 to September 2010

| | Total | VCD (%) | GUD (nh) (%) | GUD (h) (%) | LAP (%) | UD (%) | ARD (%) | IB (%) | SS (%) | GW (%) | O-STI (%) | A-STI (%) | PLAHAS |
|----------------|-------|------------|--------------|-------------|------------|-----------|----------|-----------|-----------|----------|-----------|-----------|--------|
| January 2010 | 73 | 18 (24.6) | 24 (32.8) | 4 (5.47) | 13 (17.8) | 6 (8.2) | 2 (2.73) | 0 | 4 (5.4) | 0 | 2 (2.73) | 0 | 0 |
| February 2010 | 70 | 28 (40) | 19 (27.14) | 0 | 12 (17.14) | 4 (5.7) | 0 | 1 (1.4) | 2 (2.8) | 2 (2.8) | 2 (2.8) | 0 | 0 |
| March 2010 | 111 | 55 (49.54) | 1 (0.9) | 2 (1.8) | 17 (15.31) | 16 (14.4) | 3 (2.7) | 12 (10.8) | 3 (2.7) | 0 | 2 (1.8) | 0 | 0 |
| April 2010 | 100 | 27 (27) | 3 (3) | 2 (2) | 26 (26) | 8 (8) | 0 | 5 (5) | 17 (17) | 2 (2) | 6 (6) | 4 (4) | 0 |
| May 2010 | 129 | 47 (36.4) | 3 (23.0) | 2 (1.5) | 21 (16.2) | 16 (12.4) | 1 (0.7) | 24 (18.6) | 10 (7.75) | 1 (0.7) | 3 (2.3) | 1 (0.7) | 0 |
| June 2010 | 102 | 47 (46.07) | 8 (7.8) | 0 | 29 (28.4) | 7 (6.8) | 0 | 6 (5.8) | 3 (2.9) | 1 (0.98) | 0 | 1 (0.98) | 0 |
| July 2010 | 88 | 49 (55.6) | 5 (5.68) | 2 (2.27) | 24 (27.2) | 8 (9.09) | 0 | 0 | 0 | 0 | 2 (2.27) | 0 | 0 |
| August 2010 | 128 | 60 (46.8) | 11 (8.5) | 2 (1.56) | 45 (35.15) | 7 (5.4) | 0 | 0 | 0 | 1 (0.78) | 1 (0.78) | 1 (0.78) | 0 |
| September 2010 | 123 | 103 (83.7) | 3 (2.4) | 1 (0.8) | 7 (5.6) | 6 (4.8) | 0 | 0 | 1 (0.8) | 1 (0.8) | 1 (1.8) | 0 | 0 |

VCD=Vaginal/cervical discharge, GUD (nh)=Genital ulcer discharge (non-herpetic), GUD (h)=Genital ulcer discharge (herpetic), LAP=Lower abdominal pain, UD=Urethral discharge, ARD=Anorectal discharge, IB=Inguinal bubo, SS=Scrotal swelling, GW=Genital warts, O-STI=Other sexually transmitted infection, A-STI=Asymptomatic sexually transmitted infection, PLAHAS=People living with HIV/AIDS attended STI clinic

Table 2: Syndrome wise diagnosis of STI from October 2010 to January 2011

| | Total | VCD (%) | GUD (nh) (%) | GUD (h) (%) | LAP (%) | UD (%) | ARD (%) | IB (%) | SS (%) | GW (%) | O-STI (%) | A-STI (%) | PLAHAS |
|---------------|-------|------------|--------------|-------------|-------------|------------|----------|----------|-----------|---------|-----------|-----------|--------|
| October 2010 | 70 | 40 (57.14) | 4 (5.7) | 3 (4.2) | 17 (24.2) | 3 (4.2) | 0 | 0 | 1 (1.42) | 0 | 2 (2.8) | 0 | 0 |
| November 2010 | 97 | 71 (73.19) | 2 (2.06) | 2 (2.06) | 9 (9.2) | 9 (9.2) | 0 | 0 | 0 | 0 | 0 | 4 (4.12) | 0 |
| December 2010 | 67 | 49 (73) | 3 (4.4) | 0 | 4 (5.9) | 10 (14.9) | 0 | 1 | 1 (1.49) | 0 | 0 | 0 | 0 |
| January 2011 | 83 | 57 (68.6) | 2 (3.6) | 1 (1.2) | 10 (12.04) | 11 (13.25) | 0 | 0 | 0 | 0 | 1 (1.2) | 0 | 0 |
| Total | 1241 | 651 (52.4) | 89 (7.17) | 21 (1.69) | 234 (18.85) | 111 (8.9) | 6 (0.48) | 48 (3.8) | 42 (3.38) | 8 (0.6) | 22 (1.7) | 11 (0.88) | 0 |

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pallidam, *Hemophyllas. ducreji*, *Klebsiella. granulomatis*, *Chlamydia. trachomatis* and herpes simplex virus. Along with the patients, treatment was also given to partners who were in contact with the patients in last 3 months.^[3] As our table shows, lower abdominal pain in females constituted 18.85% of all cases of STI/RTI. In mild to moderate cases, outpatient treatment can be given. Therapy is required to cover *N. gonorrhoeae*, *C. trachomatis*, and anaerobes. Hospitalization of the patient was considered when a pelvic abscess was suspected.^[3] UD constituted 8.9% of cases in our study. The treatment for UD should adequately cover therapy for both gonorrhea and chlamydial infection. All recent partners were also treated. Our study table shows that IB constituted 3.8% of all cases. Syndromic management includes treatment for *C. trachomatis* and *H. ducreyi*. Partners in contact with the patients for the last 3 months should also be treated. A bubo should never be incised and drained at the primary health center even if it is fluctuant, as there is a high risk of a fistula formation and chronicity. In case of fluctuant bubo, the patient should be referred to at least First referral unit (FRU)/, subdivisional level hospital.^[3] Painful Scrotal swelling constituted 3.38% of all cases of STI in our setup. Causative organisms are *N. gonorrhoeae* and *C. trachomatis*.^[3] A transillumination test to rule out hydrocele should always be done. Treatment was given for both gonococcal and chlamydial infection. Syndromes of ARD, GW, or PLAHAS constituted a small percentage of total STI/RTI cases and were treated according to NACO guidelines.^[3]

STIs, including HIV, continue to present major health, social, and economic problems in the developing world, leading to considerable morbidity, mortality, and stigma. The prevalence rates apparently are far higher in developing countries where STD treatment is less accessible. Association of HIV and STIs has led to common control strategies for both. The change in the incidence and prevalence of HIV is extremely difficult to detect. However, the prevalence and incidence of some STIs, which are curable, change quickly, and can be used as a proxy marker for changes in sexual behavior. There is a dearth of information regarding the epidemiology of STDs in India for many reasons such as recent recognition of STDs as a major public health problem, stigma and discrimination associated with the STDs, lack of interdepartmental coordination for studies, poor attendance of STD patients at the public clinics and academic institutions, and availability of limited diagnostic facilities, among others. This in-depth clinical research offers an important insight into the burden and pattern of STIs and syndromic management of STIs. The traditional method of diagnosing STD

is by laboratory tests. However, such laboratory services are not available in most of the rural setup in a developing nation, India. Furthermore, even if such services are available, they are expensive and beyond the reach of common population of rural West Bengal. Since 1990, WHO has recommended syndromic management of STDs in patients presenting with consistently recognized signs and symptoms of STD.^[3,4] However, this syndromic approach is not well studied and practiced in all the health catering services of our state. The starting point for the control of STDs is the establishment of STD clinics where all consultation, investigation, treatment, contact tracing, and relevant service are available.^[3,5] An ideal service is one that is free easily accessible to patients and available for long hours each day. Because of the stigma attached to the STD clinics, many patients seek alternative sources of medical care including self-medication. It is now considered that the key to the success of a STD control program is the integration of these essential elements into the primary healthcare service.^[5] Management of STDs through syndromic approach (i.e., based on specific symptoms and signs) and non-dependence on laboratory investigation are a rather new concept introduced into government health system recently. Prepacked, color-coded STI/RTI kits (containing medicines) have been provided for free supply to all designated STI/RTI clinics.^[5] In our study, VCD and GUD (nh)/(h) syndromes were the most common presentation. As per WHO guidelines, we also took into account other STI syndromes such as LAP, UD, ARD, IB, SS, GW, A-STI, and O-STI in our study structure and categorized patients who enrolled in our STI clinic in that time period accordingly. No specific microbiological diagnosis was tried and we concentrated only on syndromic approach of STI. We have seen that the syndromic approach has been a major step forward in rationalizing and improving management of STI, and its impact on the STI epidemic has been observed in various settings. However, syndromic algorithms have some shortcomings, and they should be periodically revised and adapted to the epidemiologic patterns of STI in a given setting. Simple and rapid point of care tests might help the screening of asymptomatic and low symptomatic women and the diagnosis of STI in symptomatic women. Finally, we should not forget that many other factors play a part in the successful control of STIs, including availability of effective and affordable drugs, accessible and acceptable health services, training and supervision of healthcare workers, and behavioral interventions to prevent new infections by promoting safer sex. So to conclude, it can be said that the study of syndrome-wise diagnosis status of STI/RTI patients in our setup has had extensive implication

in the effective management and monitoring of disease trends and evaluating program activities. Furthermore, ongoing evaluation of this syndromic trend of STI/RTI provides a direct measure of evaluating program effectiveness and may be used to determine the appropriateness of the selected intervention strategies for a particular setup also.

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