

**GUIDELINES FOR COMMON CONDITIONS AND
SITUATIONS SEEN IN GENERAL PRACTICE AND
GENITOURINARY MEDICINE**

15/11/00

**These guidelines have been endorsed by microbiologists based in Newcastle,
N.Tyneside and Northumberland**

GENITOURINARY MEDICINE – REFERRALS

Only around 20% of patients accessing GUM do so on the advice of a doctor, usually GP. We do not communicate unless a condition is found which is likely to have other medical implications and then only with the patient's permission (with the rare exception of the treatment and prevention of sexually transmitted infections as detailed in the NHS VD (STD) Regulations. A written reply will be sent to any doctor referring a patient with a letter but verbal referrals will not normally be acknowledged.

All patients should attend with a pre-arranged appointment. We do try to accommodate urgent cases immediately and a triage nurse or health adviser is available during clinic hours to discuss and evaluate the individual need over the telephone or in the department.

WHICH PATIENTS TO REFER

CONSIDER URGENT REFERRAL

Men with:

- Urethral discharge or dysuria
- Acute epididymitis

Men and women with:

- Primary genital herpes (if any delay, start antiviral treatment immediately)
- Genital ulceration : unconfirmed diagnosis.

REFERRAL STRONGLY RECOMMENDED

- Concern (patient or doctor) regarding sexually transmitted infection.
- Concern regarding HIV infection, especially if sexual risk
- Any of the following infections:
 - Chlamydia
 - Gonorrhoea
 - Genital warts
 - Trichomoniasis
 - Syphilis
- Sexual contacts of:
 - Chlamydia
 - Non-gonococcal urethritis
 - Gonorrhoea
 - Genital warts
 - Trichomoniasis
 - Syphilis
 - HIV
 - Hepatitis B and C

Patients being treated for chlamydial infection and gonorrhoea can be referred directly to arrange partner notification (contact tracing).

REFERRAL RECOMMENDED

- Acute balanoposthitis
- Acute vulvovaginitis especially after a sexual risk or new partner
- Genital molluscum contagiosum
- Pubic lice
- Genital scabies

CONSIDER REFERRAL

Persistent or recurrent vaginal discharge or vulval irritation – to exclude infection.

Persistent or recurrent balanoposthitis – to exclude infection.

Unusual genital lesions.

Pelvic pain to exclude identifiable infection.

Intrascrotal discomfort to exclude identifiable sexually transmitted infection.

REGULAR INVESTIGATIONS IN GENITOURINARY MEDICINE**ROUTINE****Men**

- Urethral smear for direct microscopy (gram-stained) – if urethral discharge is apparent. Examined for pus cells and gram negative diplococci.
- Urethral swab to culture for *Neisseria gonorrhoea*.
- Urethral swab for *Chlamydia trachomatis* (EIA).
- Two or one glass urine test frequently undertaken to screen for low-grade urethritis or UTI.
- Syphilis serology

Women

- Urethral and cervical smears for direct microscopy (gram-stained). Examined for gram negative diplococci.
- Urethral and cervical swabs to culture for *Neisseria gonorrhoeae*.
- Urethral and cervical swabs for *Chlamydia trachomatis* (EIA).
- Two vaginal specimens, one gram stained smear for direct microscopy and one in a normal saline suspension for phase contrast microscopy. They are examined for yeasts (spores/hyphae), bacterial vaginosis (replacement of lactobacillus flora with gram variable cocco-bacilli forming 'clue cells') and trichomoniasis (motile flagellate protozoa on wet preparation).
- Syphilis serology.

WHEN INDICATED

- Gram-stained rectal smears (relevant signs or symptoms or other high risk).
- Rectal and throat cultures for gonorrhoea.
- Saline suspension samples from genital ulcers if syphilis possible for dark-ground microscopy.
- Swabs for virology (direct immunofluorescent microscopy and culture) from genital ulcers if herpes possible. Both tests can be done from the same specimen.
- Herpes complement fixation test in possible early herpes (may require repeat in 10-14 days).
- Specific testing for tropical STD if considered possible on clinical grounds.
- Vaginal cultures for candida and trichomonas in certain situations.
- HIV testing – actively promoted in those at higher risk.
- Hepatitis B virus screening (generally homosexual men and drug users) with vaccination for homosexual men and prostitutes if indicated.
- Hepatitis C screening – largely for injecting drug users and their partners.

SWABS TO INVESTIGATE GENITAL INFECTIONS

CERVIX

Before taking swabs for infection but after cervical cytology, if this is being done, the cervix should be cleaned with a cotton ball in a sponge holder.

Endocervical for chlamydia – currently enzyme immunoassay (EIA) type test is used. This type of test misses 30-40% of infections (compared with the new polymerase or ligase chain reaction type tests). The swab should be inserted 1-2cm into the cervical os and rotated for 15-30 seconds. An increased detection rate of around 10% can be achieved by taking a urethral swab as well (in the same container) or in high risk situations repeating the test after a week. False positive results do occasionally occur but are rare.

Endocervical for gonorrhoea – culture from swab sent in Stuart's or Amies' transport medium as supplied by the local laboratory.

A single cervical swab will miss around 15% of cases of urogenital gonorrhoea. This can be reduced by taking in addition a urethral swab and in high risk situations repeating the swabs after a week. *Neisseria gonorrhoeae* also commonly infects the pharynx and rectum, the latter usually by the passive transfer of infected secretions. These may be the only sites of infection. Therefore in high risk situations (e.g. contacts of gonorrhoea or men with undiagnosed urethritis) throat and rectal swabs should also be taken for gonorrhoea.

VAGINA

A single high vaginal swab sent in Stuart's or Amies' transport medium is adequate to diagnose trichomoniasis, candidosis and bacterial vaginosis. *Candida* species can be isolated as a commensal organism in around 20% of women so should only be treated if clinically indicated. As the organisms found in bacterial vaginosis (largely *Gardnerella vaginalis*) are usual commensals culture is not appropriate. A gram-stained vaginal smear showing an absence or loss of lactobacilli in association with *Gardnerella vaginalis* type organisms with signs and or symptoms (altered grey/white homogeneous discharge with a fishy odour) is diagnostic. The laboratory can prepare a smear from the swab sent.

ULCERS

The commonest infective cause of painful genital ulcers is herpes simplex virus types 1 and 2. Swabs from ulcers should be sent in viral transport medium for viral testing. While awaiting transport, and during storage, the medium should be kept refrigerated. The virus is difficult to detect, especially when the lesions are healing so a negative result does not exclude infection.

MALE URETHRA

Chlamydia – currently enzyme immunoassay (EIA) type test is used. This type of test misses 30-40% of infections (compared with the new polymerase or ligase chain reaction type tests). Insert swab 1-4 cm inside urethra and rotate once.

Gonorrhoea - urethral swab with discharge, freshly expressed, if possible.

THROAT FOR GONORRHOEA

Swab in Stuart's or Amies' transport medium from tonsils or tonsillar bed.

RECTUM FOR GONORRHOEA

Initial swab by direct visualisation using proctoscope preferred in Stuart's or Amies' transport medium. Try to avoid faecal material and sample pus if evident.

Repeat swabs for gonorrhoea in high risk patients advised from throat and rectum.

TREATMENT

Treatment without charge (including a prescription fee) is provided for all patients with an acute sexually transmitted infection and certain other related problems. We are also funded to provide anti-retroviral treatment (for HIV infection) although not other drugs in relation to HIV infection.

The current budget provided by the Health Authority does not include home treatment for genital warts (podophyllotoxin and imiquimod) and long term suppressive treatment for frequent recurrences of herpes and candidosis. If such treatments are required or requested we are obliged to refer the patient to his or her GP.

GUIDELINES

Guidance on the management of certain common infections and clinical situations now follows. These guidelines are not comprehensive but provide advice on the assessment and management of genitourinary infections and clinical presentations outwith GU clinics.

Balanitis/balanoposthitis	5
Chlamydia trachomatis	6,7
Gonorrhoea	8,9
HIV infection and testing	10
Lumps and bumps	11
Ulcers	12
Urethral discharge/dysuria	13
Vaginal discharge	14,15
Vulval irritation/discomfort	16
Warts	17

References :-

Clinical Effectiveness Group. UK national guidelines on sexually transmitted infections and closely related conditions. *Sex Transm Inf* 1999;75(suppl 1).

Sonnex C. *A General Practitioner's Guide to Genitourinary Medicine and Sexual Health*. Cambridge University Press. 1996.

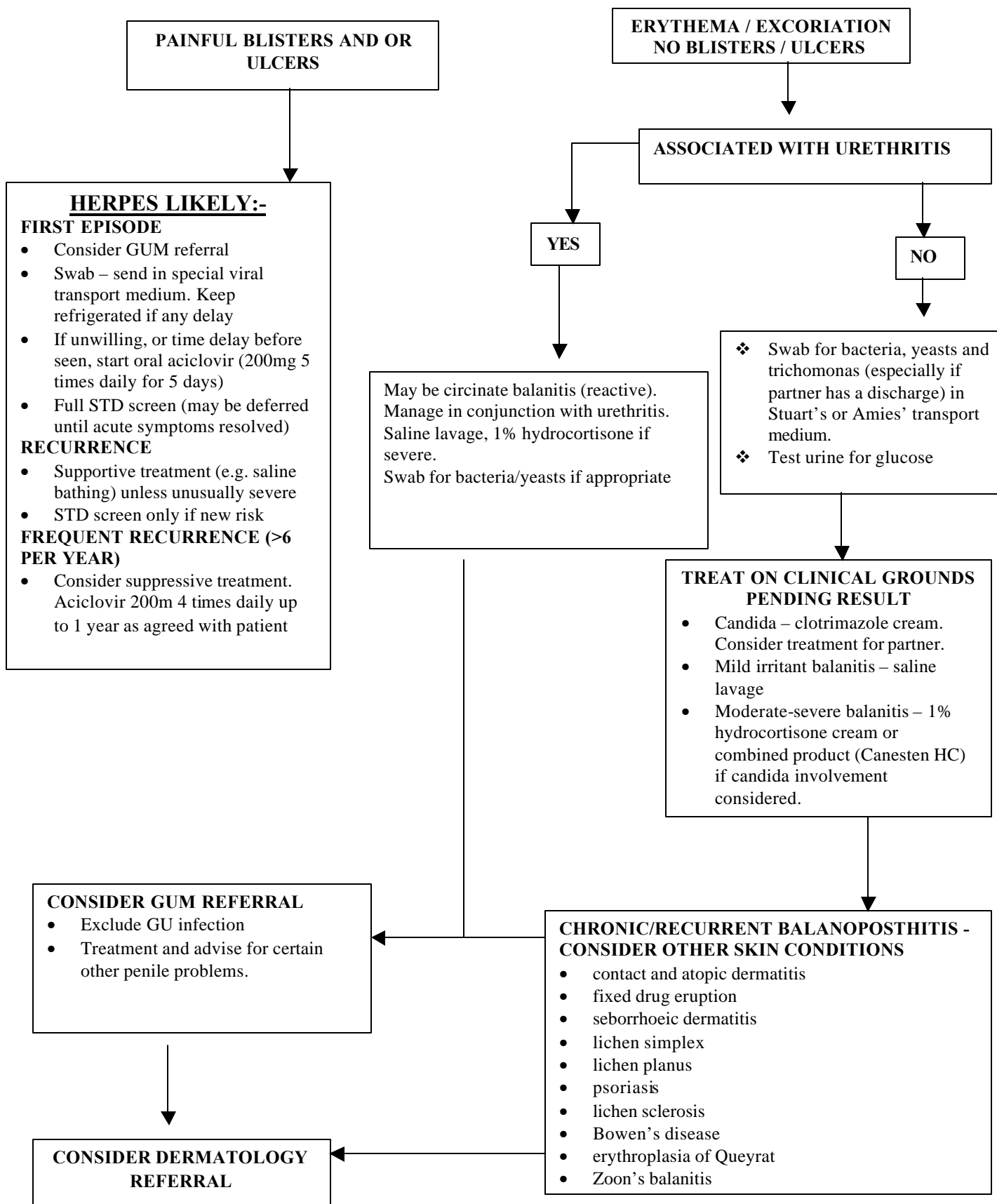
Central Audit Group in Genitourinary Medicine. Clinical guidelines and standards for the management of uncomplicated genital chlamydial infection. *Int.J.STD & AIDS* 1998;9:253-62.

Reynolds et al. Audit of treatment of genital warts. *Int.J.STD&AIDS* 1993;4:226-31.

McMillan A. The management of difficult anogenital warts. *Sex Transm Inf* 1999;75:192-4.

National Audit Development Project. National standards for the management of gonorrhoea. *Int.J.STD & AIDS* 1996;7:298-300.

BALANITIS/BALANOPOSTHITIS



CHLAMYDIA TRACHOMATIS – DIAGNOSIS / MANAGEMENT GUIDANCE

(Based on :- Clinical guidelines and standards for the management of uncomplicated genital chlamydial infection. Central Audit Group in Genitourinary Medicine. Int.J.STD & AIDS 1998;9:253-62. and National guideline for the management of Chlamydia trachomatis genital tract infection. Clinical Effectiveness Group. Sex Transm Inf 1999;75(suppl 1):S4-S8.)

MEN

Asymptomatic in up to 50%
Account for around 40% of NSU

- urethral discharge +/-
- dysuria

Prevalence not well documented

WOMEN

Asymptomatic in up to 80%
Clinical features

- post-coital/intermenstrual bleeding
- lower abdominal pain
- purulent vaginal discharge
- mucopurulent cervicitis +/- contact bleeding

Associated with/high risk

- young age <25 years
- recent change in partner/>2 in one year
- gonorrhoea
- teenagers attending for TOP (up to 25%)

Duration of infection prior to detection impossible to gauge and, particularly in asymptomatic infection, prolonged carriage for months or years is common.

DIAGNOSIS

(Restricted to EIA (enzyme immunoassay) testing as currently this is the only test routinely available)

Sensitivity ~ 60%, Specificity >98%.

MEN

Small swab essential.
Insert swab 1-4 cm inside urethra and rotate once.
Improved sensitivity if taken at least one hour post micturition.

Repeat testing in high risk may detect an additional 8-10% of cases (usually after 1-2 weeks).
Keep specimens refrigerated pending transfer.
Ensure that patients are aware that they are being screened for a sexually transmitted infection.
Equivocal results rare but should be treated as positive unless other compelling reasons.

WOMEN

Sampling from urethra in addition to cervix increases detection rate by 10-20%. Both swabs can be put into the same sample container.
Small swab essential for urethra. Insert 1 cm and rotate once.
Clean cervix before sampling to remove secretions.
Insert swab 1-2cm into os and rotate for 15-30 seconds.
Avoid touching vagina when removing swab.

MANAGEMENT

Recommended first line:-

Tetracyclines: - doxycycline 100mg twice daily for 7 days; Doxyclo 300mg (one tablet) twice daily for 7 days.

Azithromycin 1G single dose.

Alternative regimens:-

Erythromycin:- 500mg twice daily or 250mg four times a day for 14 days; 500mg four times a day for 7 days. (Depends on tolerance).

Ofloxacin:- 200mg twice daily or 400mg once a day for 7 days.

Pregnancy:- (tetracyclines and ofloxacin contraindicated, azithromycin unknown safety.)

Erythromycin – as detailed above; Amoxicillin:- 500mg three times a day for 7 days.

Advise:-

Abstinence from intercourse (even using a condom) until patient and partner(s) are fully treated.

Examination/additional screening to exclude other sexually transmitted infections (STI).

Consider test of cure, one week after completion of treatment, especially for asymptomatic cases or where symptoms fail to resolve.

Partner notification/Contact tracing:-

Must be undertaken. Generally partners over past 6 months or until last previous partner (whichever is longer).

All identified contacts should be treated (epidemiologically) and advised/offered STI screening.

REASONS FOR CONSULTATION

Specific symptoms (see overleaf)
 Specific sexual concern
 Contact of chlamydia, gonorrhoea, urethritis, pelvic inflammatory disease
 Unplanned pregnancy (especially in teenager)

CHLAMYDIA

EXAMINE AND SCREEN

This should include other sexually transmitted infections in addition to chlamydia, especially gonorrhoea.
 Consider treatment on clinical grounds if relevant e.g. hypertrophic cervicitis, PID.
 In men with acute urethritis consider direct referral to GUM for immediate microscopy.

POSITIVE CHLAMYDIA RESULT

NEGATIVE CHLAMYDIA RESULT

TREAT

Provide information and advice (see back).

Consider repeat swabs (usually after 1-2 weeks) especially if high risk or specific risk within one week of initial test.

PARTNER NOTIFICATION

(including routine treatment of sexual partners).

PATIENT REVIEW

(Usually at least one week after completion of treatment)
 Ensure adherence to and completion of treatment.
 Ensure no reinfection risk.
 Ensure partner has been treated (when relevant)
 Offer test of cure when appropriate (see overleaf)
 If recent sexual risks ensure patient is aware of 3 month window for serological screening (usually syphilis and HIV)

REFER TO GENITOURINARY MEDICINE

With letter – if reply required.
 Verbally – no correspondence except for unusual situations where correspondence is in the patient's best interests and generally only with patient's consent.

GONORRHOEA - DIAGNOSIS AND MANAGEMENT GUIDANCE

(Based on :- National standards for the management of gonorrhoea. National Audit Development Project. Int.J.STD & AIDS 1996;7:298-300 and National guideline for the management of gonorrhoea in adults. Clinical Effectiveness Group. Sex Transm Inf 1999;75(suppl 1):S13-S15.)

MEN

Asymptomatic in about 10%

- urethral discharge 80% +/-
- dysuria (50%)

Rectal infection in homosexuals may cause anal discharge, pain or discomfort (7-12%)

WOMEN

Asymptomatic in up to 50%

Clinical features

- increased/altered vaginal discharge (up to 50%)
 - lower abdominal pain (<10%)
 - dysuria without frequency
 - post-coital/intermenstrual bleeding
- Rectal infection common, sometimes in isolation and generally thought to be due to spread from vaginal discharge.

**Pharyngeal infection common and asymptomatic in about 90%.
Although more commonly associated with fellatio may follow
cunnilingus.**

DIAGNOSIS

Culture from swabs placed in Stuart's Transport Medium(or Amies' medium)

Sensitivity >95%, Specificity~100%

MEN

Urethral swab with discharge, freshly expressed, if possible.

Pharyngeal swab if homosexual risk and/or gonorrhoea contact or symptoms.

Rectal swab if homosexual risk.

If at risk repeat testing after one week should be advised to all women (from all sites) and men from the throat and rectum.

Maintain specimens at room temperature. Get to laboratory within 24 hours.

WOMEN

Swab from cleaned cervix – if possible rotate swab in endocervical cannal and urethra. It may be possible to put both into the same sample container.

Rectal and throat cultures if symptomatic or partner has gonorrhoea.

N.B. Cervical infection is present in only 90% women with gonorrhoea. Single cervical swab will miss 15% of cases.

MANAGEMENT

Recommended first line:-

Ciprofloxacin 500mg orally as a single dose.

Ofloxacin 400mg orally as a single dose.

Ampicillin 2G or 3G plus probenecid 1G orally as a single dose.

Alternative regimens:-

Ceftriaxone 250 mg intramuscular single dose – if resistance suspected (e.g. source in Far East).

Pregnancy:-

Ceftriaxone and ampicillin/probenecid as detailed above.

Co-infection with chlamydia occurs in up to 20% of men and 40% of women with gonorrhoea so consider combining with anti-chlamydial regime.

Advise:-

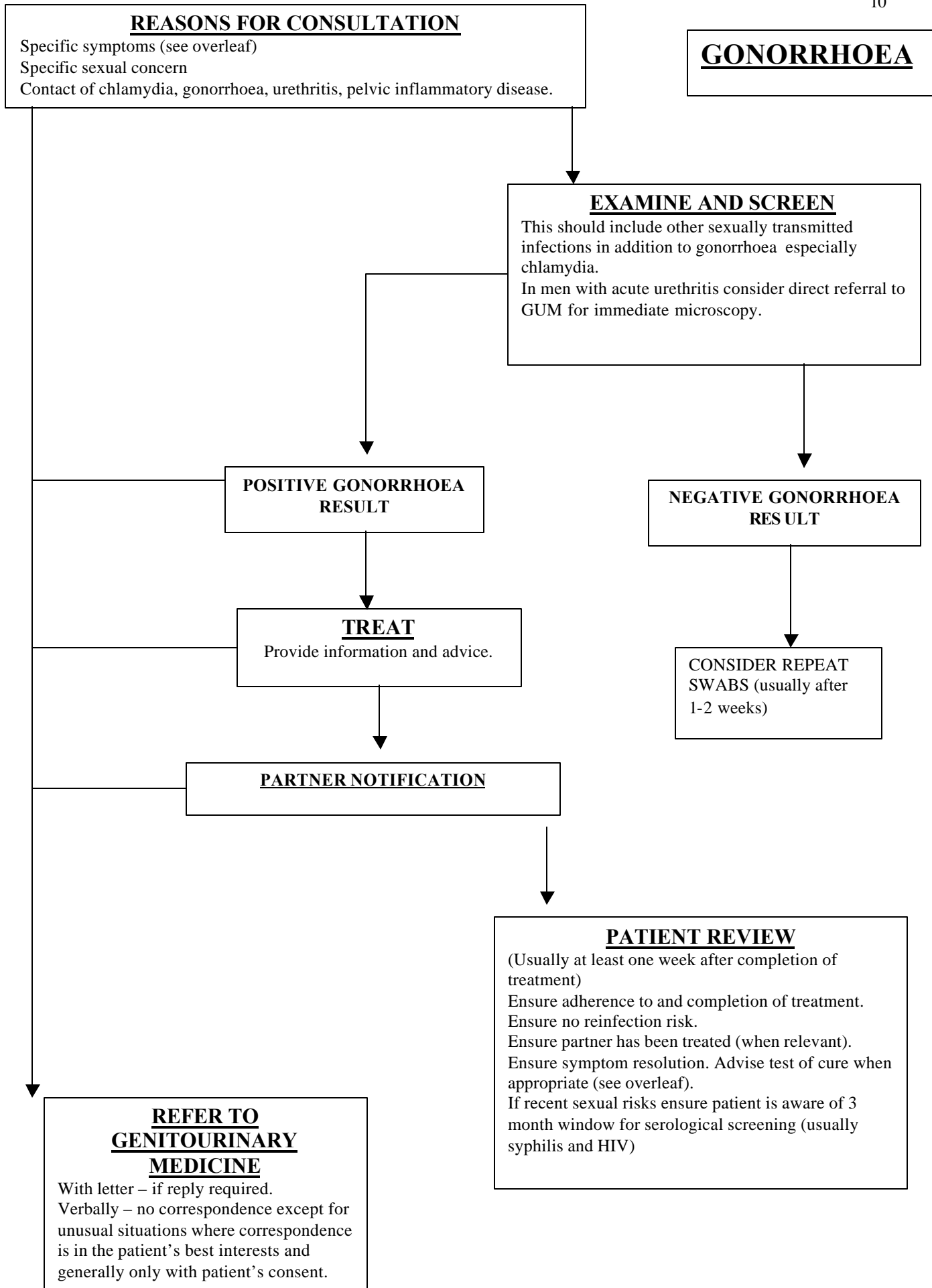
Abstinence from intercourse (even using a condom) until patient and partner(s) are fully treated.

Examination/additional screening to exclude other sexually transmitted infections (STI).

Review one week after treatment. At least one negative test of cure required from women (all sites) and men from all with throat and rectal infection and urethra if symptoms +/- signs persist or strain exhibits high level resistance.

Partner notification/Contact tracing:-

Must be undertaken. Generally partners over past 3 months should be traced. In men with acute urethritis partners within the preceding 2 weeks may be adequate.



HIV TESTING AND HIV INFECTION

HIV testing is provided for all those who perceive themselves to be at risk. It is also raised proactively and offered to those assessed to be at risk when attending for other reasons. The results of HIV testing are not communicated to anyone outside this department unless they are referred by a doctor's letter specifically requesting this test. Patients with positive test results are encouraged to permit direct communication with their GP for their ultimate benefit, especially if they are taking anti-retroviral treatment which may have unusual side effects. It is unusual for patients to refuse this but we are required to work under the national VD (STD) regulations which prohibits the transmission of information unless it is directly related to treatment or prevention of a sexually transmitted infection. Some patients refuse to disclose their GP and even their own name.

Further investigations, follow-up and antiretroviral treatment for HIV infection are provided in GUM, although patient's with advanced disease and opportunistic infections are referred onto Infectious Diseases.

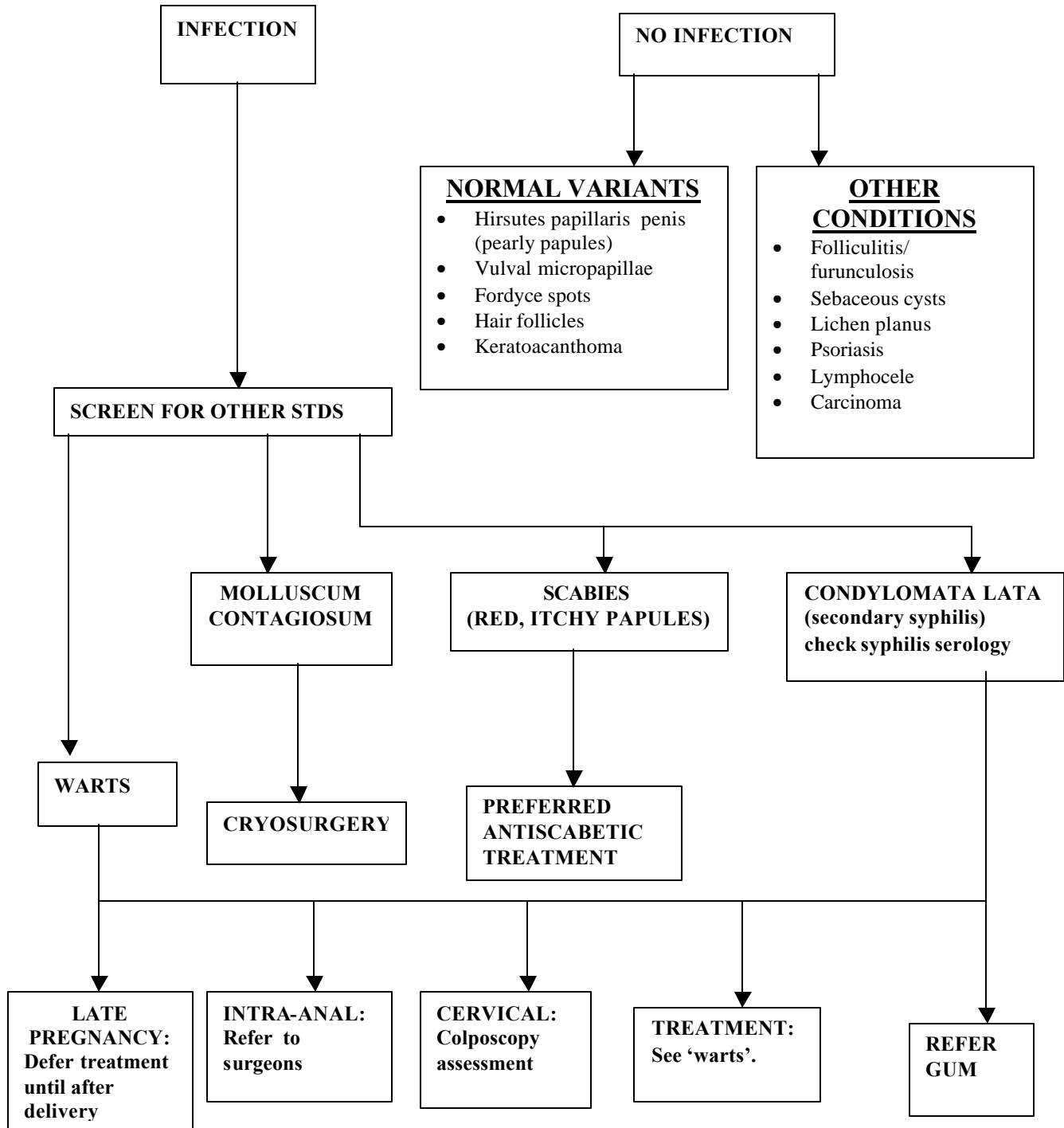
HIV TESTING

This should be widely available as a main stream test and not just specialist centres although if someone is identified as having a very high risk (e.g. suspicious symptoms, known sexual contact with HIV infection) they may benefit from specialist counselling prior to testing (via GUM). A 5ml sample of clotted blood is sufficient for testing.

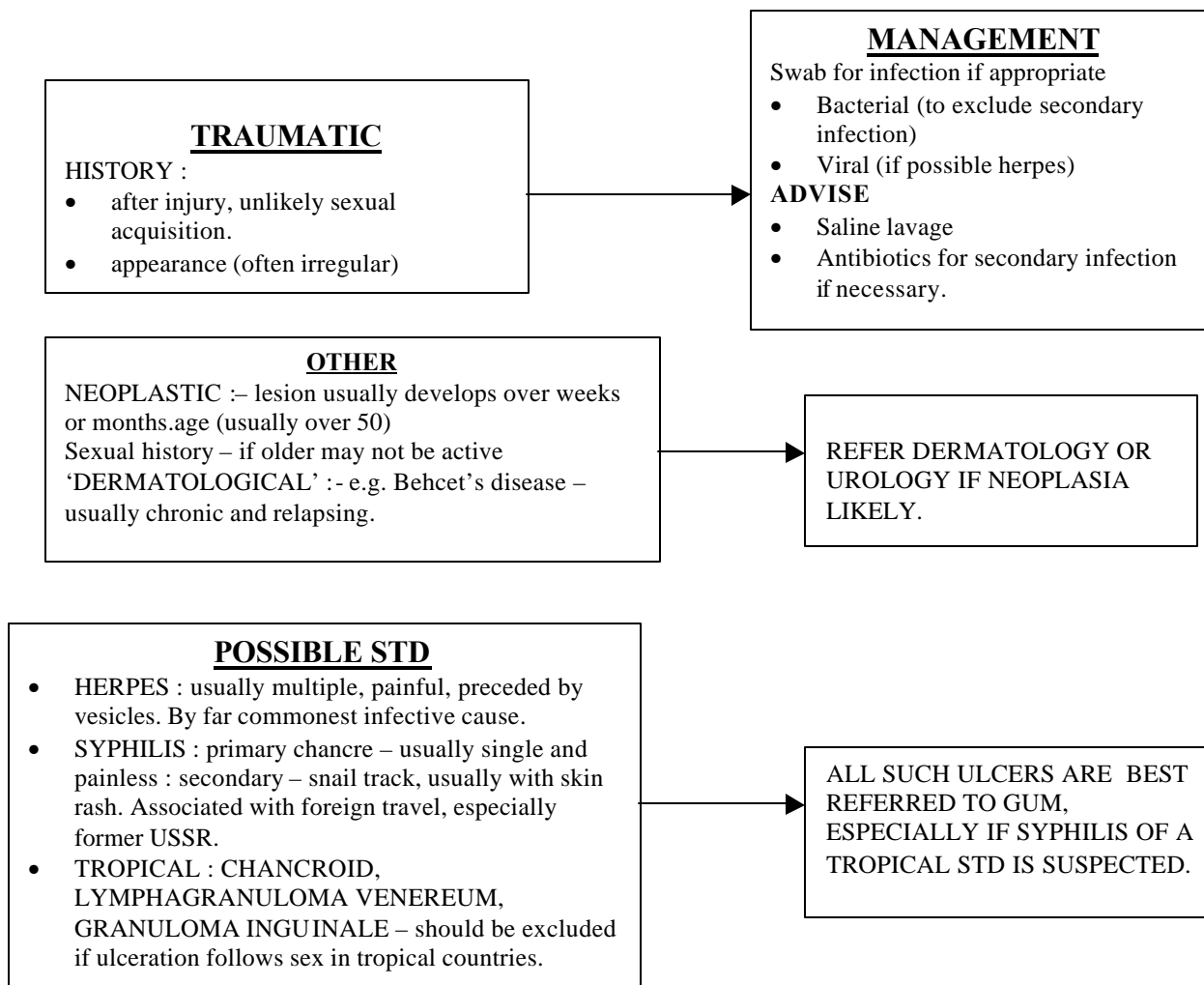
ISSUES TO CONSIDER

1. Relative risk assessment. Those at highest risk (based on current epidemiological data) include:-
 - a.) Homosexual and bisexual men
 - b.) Those sexually active in areas with a high prevalence of HIV infection
 - c.) Injecting drug users who share equipment
 - d.) Sexual contacts of the above.
2. Timing of test. Must ensure minimum of 3 months between risk and final test.
3. Implications.
 - a.) Workplace – e.g. health service (surgical techniques), airline pilots.
 - b.) Life insurance – should only apply to positive result.
 - c.) Relationships
4. Arrangements for obtaining result. More important with high risk.
5. Consider other STDs and offer appropriate screening – if risk is sexual.

LUMPS AND BUMPS



ULCERS (GENITAL)



HERPES LIKELY:-

FIRST EPISODE

- Consider GUM referral
- Swab – send in special viral transport medium. Keep refrigerated until sent especially if an overnight delay is anticipated.
- If unwilling, or time delay before seen, start oral aciclovir (200mg 5 times daily for 5 days)
- Analgesia may be required (e.g. 30-60 mg codeine phosphate 4-6 times a day)
- Full STD screen (may be deferred until acute symptoms resolved)

RECURRENCE

- Supportive treatment (e.g. saline bathing) unless unusually severe when oral aciclovir is justified
- STD screen only if new risk

FREQUENT RECURRENCE (>6 PER YEAR)

- Consider suppressive treatment. Aciclovir 200m 4 times daily up to 1 year as agreed with patient. No guaranteed long-term benefit.

MALE URETHRAL DISCHARGE/DYSURIA

FACTORS SUGGESTING NON-SEXUALLY TRANSMITTED CAUSE. CONSIDER UNDERLYING URINARY TRACT INFECTION

- Sexual history: – long-standing stable sexual relationship or not sexually active
- Age :- prostatism with UTI more common in those >50years
- Symptoms :- increased frequency, loin pain, pyrexia, malaise suggest UTI.

MANAGEMENT

Check 2 glass urine test. Typically both samples opaque and fail to clear with acidification. Dip-stick may show leucocytes, nitrites and blood. Send MSSU for culture and sensitivity. Treat as UTI and consider further urological referral.

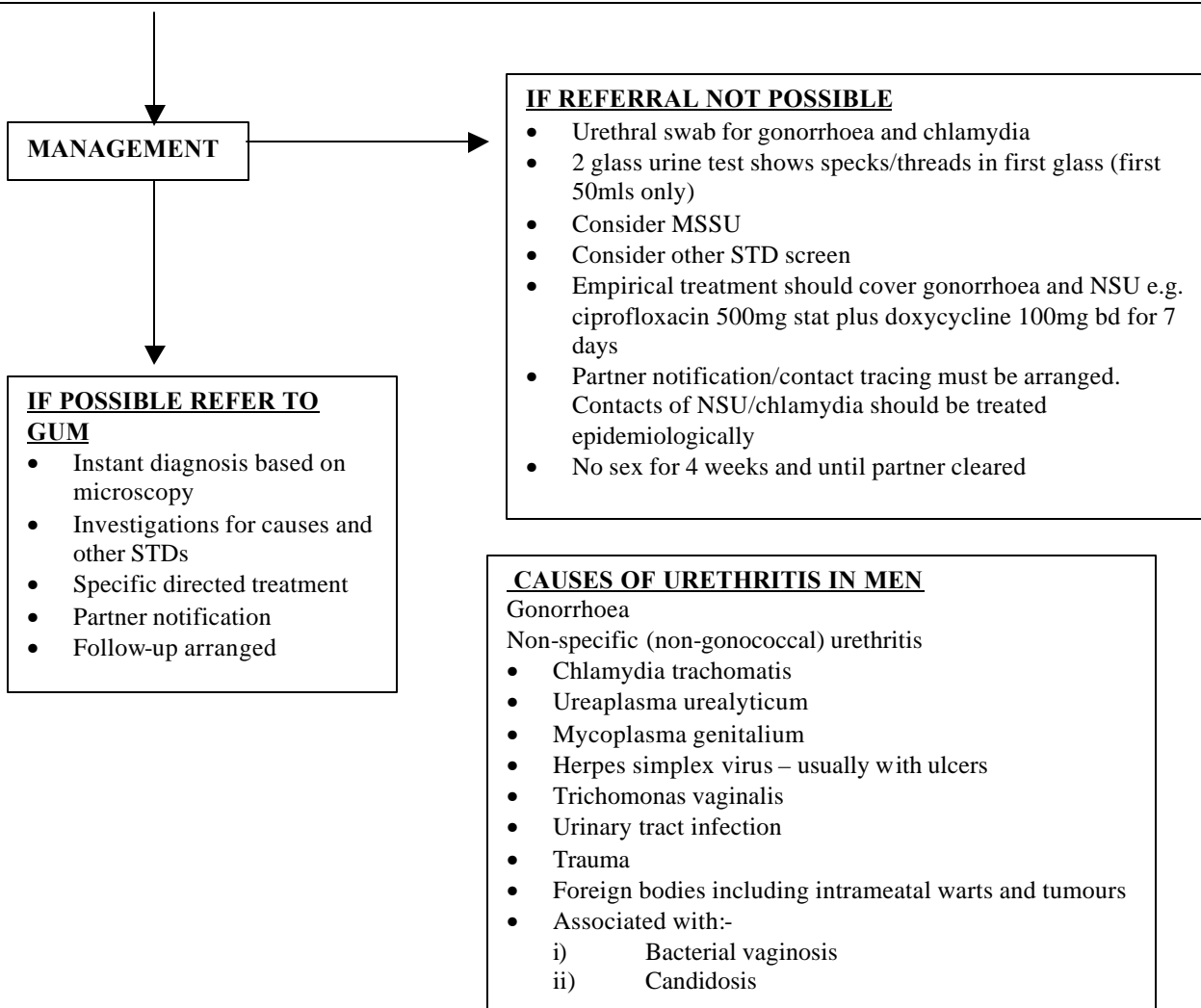
If doubts – swab for gonorrhoea (in Stuart's or Amies' transport medium) and small chlamydia swab using test kit.

FACTORS SUGGESTING SEXUALLY TRANSMITTED CAUSE.

Sexual history:- most (though not all) new acute cases of urethritis arise within 4 weeks from the acquisition of infection. Any risks, or concerns about a partner would indicate a likely sexually acquired cause.

Age :- sexually acquired urethritis most commonly found in men from late teens to 40years.

Symptoms :- urethral discharge usually prominent. Increased frequency and systemic symptoms unusual.



VAGINAL DISCHARGE

The commonest causes of an altered discharge seen in General Practice and GU clinics are bacterial vaginosis and candidosis, neither of which are sexually transmitted. Trichomoniasis which typically causes an offensive purulent discharge with associated burning of the skin and external dysuria is becoming much less common but should be considered as sexually transmitted. An altered discharge following a new sexual contact should also be considered as indicating a possible sexually acquired infection. Recurrent or relapsing problems should also be formally assessed. Although ideally anyone complaining of an altered discharge should be examined and tested appropriately this is not possible and may not be welcomed by the patient. The flow-chart overleaf attempts to provide a pragmatic approach to this problem.

CANDIDOSIS

History

Recent antibiotics
Pregnancy
Associated vulval irritation
Thick or curdy discharge

Signs

Vulval erythema
White curdy discharge typical but may be very variable.

Microscopy

Spores and hyphae

Culture

Dry high vaginal swab (caution - candida sp commensal in about 20%).

BACTERIAL VAGINOSIS

History

White/grey malodorous watery homogeneous discharge.
Smell worse after sex and with period.
Usually no vulval irritation.

Signs

Free flowing white/grey discharge, often frothy.
Fishy smell, demonstrated if discharge mixed with alkali (10% KOH).

Microscopy

Loss of lactobacilli
Replacement with small gram-variable cocco-bacilli (mostly Gardnerella vaginalis) forming clue cells.

Culture

Not applicable (G vaginalis normal commensal). Laboratory prepare vaginal smears from swab sent in Stuart's or Amies' transport media.

TRICHOMONIASIS

History

Always consider as being sexually acquired.
Offensive green/yellow discharge that may become more mucoid with time.

Vulval burning/discomfort
External dysuria

Signs

Discharge – as described
Vulvitis

Microscopy

Motile flagellated protozoa on saline suspension using phase contrast

Lab. identification

From vaginal swab sent in Stuart's or Amies' transport media.

MANAGEMENT

1. Candidosis

Clotrimazole pessary 500mg (single dose) or 100mg for 6 nights with 1% clotrimazole cream if vulvitis. If vulvitis unusually severe prescribe canesten HC cream (hydrocortisone 1% plus clotrimazole 1%).

Nystatin pessaries 100,000 units, 1-2 for 14 nights with cream, 100,000 units/g if vulvitis. Useful to consider if previous repeated treatments with clotrimazole and other azoles.

Oral agents – fluconazole 150 mg immediately, itraconazole 200mg twice daily for one day.

Recurrent candidosis: consider weekly suppressive treatment for 6 months – e.g. clotrimazole pessary 500mg or fluconazole 100mg. There is no benefit in treating asymptomatic male contacts.

2. Bacterial vaginosis

Metronidazole orally 400mg twice daily for 7 days or intravaginal gel (0.75%) once daily for 5 days

Clindamycin cream (2%) intravaginal once daily for 7 days.

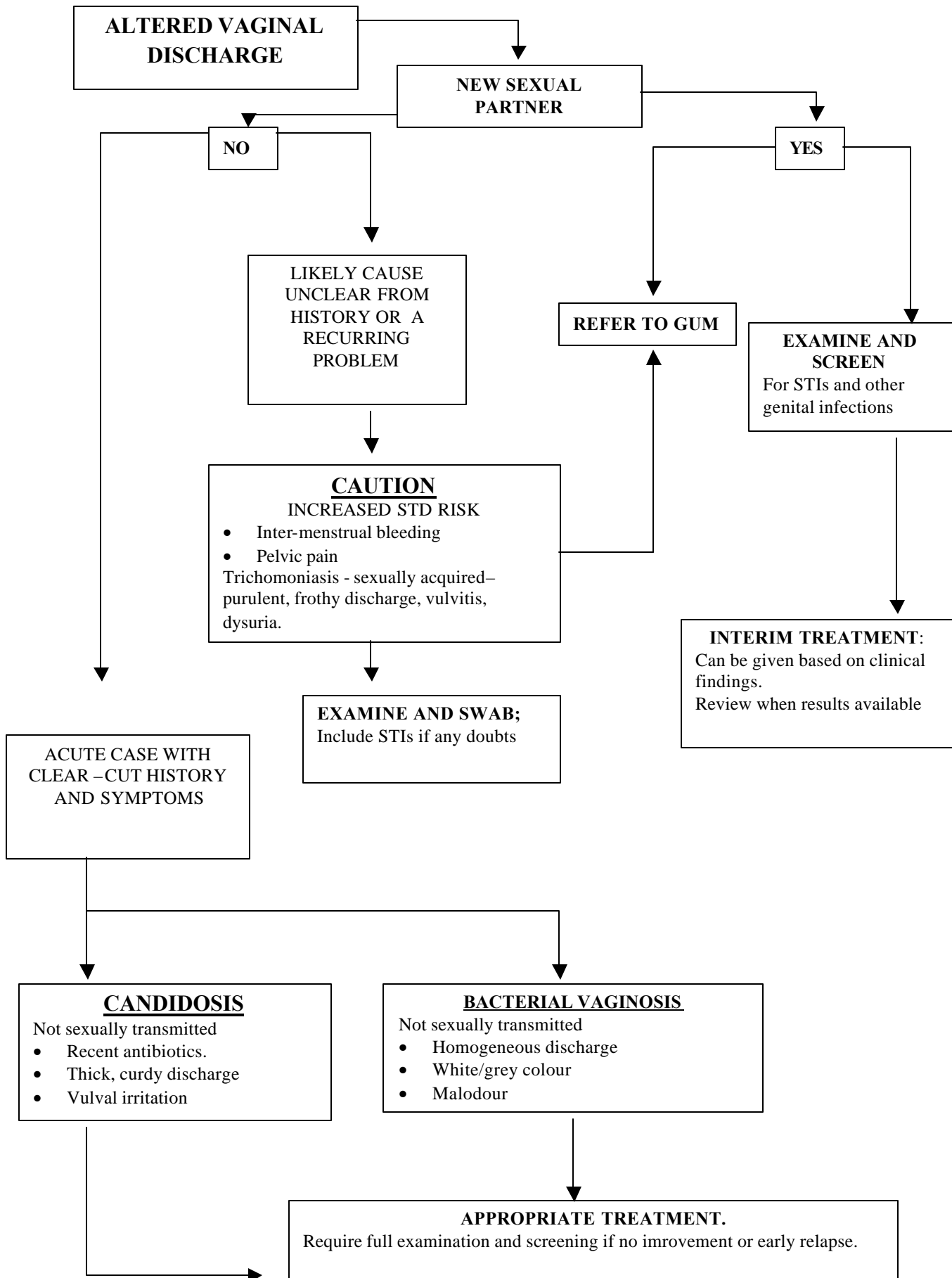
There is no benefit in treating asymptomatic male contacts.

3. Trichomoniasis

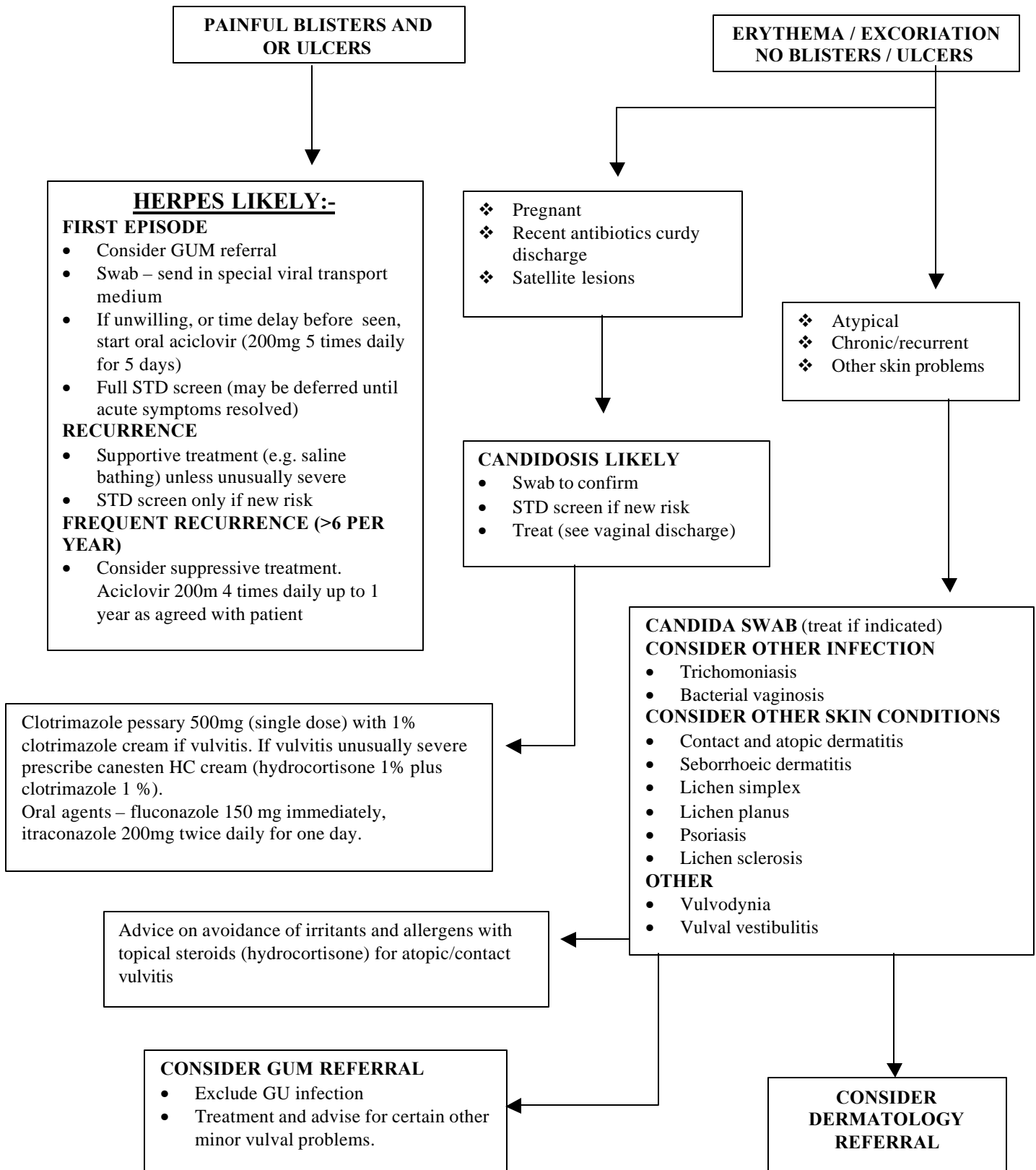
Metronidazole orally 400mg twice daily for 7 days of as a single 2G dose.

Desensitisation if metronidazole allergy.

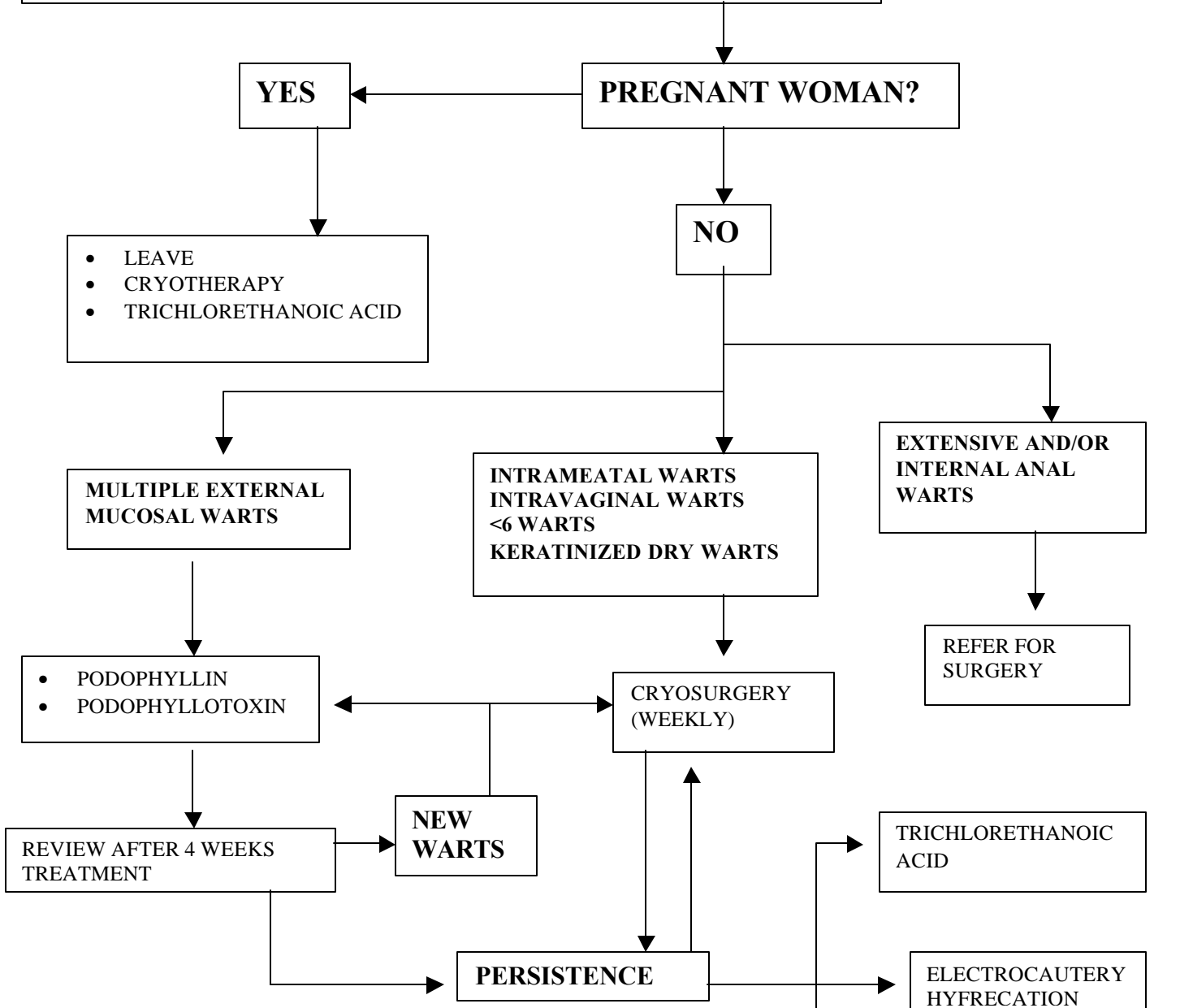
Current sexual contacts should always be treated epidemiologically.



VULVAL IRRITATION / DISCOMFORT/PAIN



NEWLY DIAGNOSED ANOGENITAL WARTS
 General guidance used in GUM clinics. However shared care useful especially for those having distances to travel in view of need for regular treatment, where local topical treatments can be prescribed or applied.



TREATMENTS

SELF-TREATMENT

- Podophyllotoxin cream or lotion (cost £14-£16). Apply twice daily for 3 consecutive days. Repeat weekly for 4 weeks.
- Imiquimod (cost £55-£200) – apply 3 times a week at night and wash off in the morning. Continue until warts cleared. Maximum duration 16 weeks.

DOCTOR/NURSE TREATMENT

- 25% podophyllin in spirit. Wash off in 4-6 hours. Weekly treatment.
- 90% trichlorethanoic acid. Protect adjacent skin with vaseline before applying. Review weekly
- Cryosurgery – weekly review
- Electrocautery/hyfrecaction – using local anaesthetic. Review in 2 weeks.

Costs are approximate (Mims August 2000)

SURGICAL REFERRAL

- Persistent genital warts especially with scarring (e.g. phimosis)
- Recurrent/recalcitrant intrameatal and intravaginal warts
- Intra-anal/extensive perianal warts