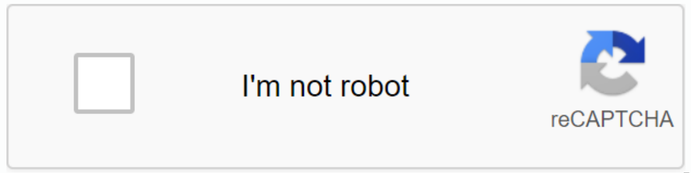

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Pelvic inflammatory disease acog guidelines pdf

Pelvic inflammatory disease (ID) comprises a spectrum of inflammatory disorders of the upper female genital tract, including any combination of endometritis, salpingitis, tube-ovary abscess and pelvic peritonitis (728). Sexually transmitted organisms, especially N. gonorrheae and C. trachomatis, are implicated in many cases. Recent studies suggest that the proportion of PID cases attributable to N. gonorrhoeae or C. trachomatis is decreasing; of women who were diagnosed with acute PID, <50% tested positive for any of these organisms (270,729,730). Microorganisms that make up the vaginal flora (e.g., anaerobes, G. vaginalis, Haemophilus influenzae, enteric gram-negative sticks and Streptococcus agalactiae) were associated with PID (731). In addition, cytomegalovirus (CMV), M. hominis, U. urealyticum and M. genitalium may be associated with some cases of PID (264,265,267,732). Newer data suggest that the genitary M. may play a role in the pathogenesis of PID (270,487) and may be associated with milder symptoms (267), although one study has not demonstrated a significant increase in PID after detection of M. genitalium in the lower genital tract (733). All women who are diagnosed with acute PID should be tested for HIV, as well as gonorrhea and chlamydia, using NAAT. The value of testing women with PID for M. genitalium is unknown, and there is no commercially available diagnostic test that has been released by the FDA for use in the United States (see Mycoplasma genitalium). Screening and treatment of sexually active women for chlamydia reduce the risk of PID (456,682). Although BV is associated with PID, it is unclear whether the incidence of PID can be reduced by identifying and treating women with TB (731,734). Diagnostic considerations Acute PID is difficult to diagnose due to the wide variation of symptoms and signs associated with this condition. Many women with PID have subtle or non-specific symptoms or are asymptomatic. Delay in diagnosis and treatment probably contributes to inflammatory sequelae in the upper reproductive tract. Laparoscopy can be used to obtain a more accurate diagnosis of salpingitis and a more complete bacteriological diagnosis. However, this diagnostic tool is often not readily available, and its use is not easily justifiable when symptoms are mild or vague. In addition, laparoscopy will not detect endometritis and may not detect subtle inflammation of the fallopian tubes. Consequently, the diagnosis of PID is usually based on inaccurate clinical findings (735,736). Data indicate that a clinical diagnosis of symptomatic PID has a PPV for salpingitis of 65%-90% compared to laparoscopy (737-739). The PPV of a clinical diagnosis of acute PID depends on the epidemiological characteristics of the population, with higher PPVs among sexually active young women adolescents), women who attend STD clinics and who live in communities with high rates of gonorrhea or chlamydia. Regardless of whether no single historical, physical or laboratory finding is sensitive and specific for the diagnosis of acute PID. Combinations of diagnostic findings that improve sensitivity (i.e., detect more women who have PID) or specificity (i.e., exclude more women who do not have PID) do so only at the expense of the other. For example, requiring two or more findings excludes more women who do not have PID and reduces the number of women with PID identified. Many episodes of PID are not recognized. Although some cases are asymptomatic, others are not diagnosed because the patient or healthcare professional does not recognize the implications of mild or non-specific symptoms or signs (e.g., abnormal bleeding, dyspareunia, and vaginal discharge). Even women with mild or asymptomatic PID may be at risk of infertility (740). Due to the difficulty of diagnosis and the potential for damage to women's reproductive health, health professionals should maintain a low threshold for the diagnosis of ID (729). The following recommendations for the diagnosis of PID are intended to help healthcare professionals recognize when PID should be suspected and when additional information should be obtained to increase diagnostic certainty. The diagnosis and management of other common causes of lower abdominal pain (e.g., ectopic pregnancy, acute appendicitis, ovarian cyst, and functional pain) will hardly be impaired by the initiation of antimicrobial PID therapy. Presumptive treatment for PID should be initiated in sexually active young women and other women at risk of STDs if they have pelvic or lower abdominal pain, if there is no cause for disease other than PID, and if one or more of the following minimum clinical criteria are present on pelvic examination: tenderness to cervical movement or uterine tenderness or adnexal tenderness. The requirement that all three minimum criteria be present before the start of empirical treatment may result in insufficient sensitivity for the diagnosis of IPD. After deciding whether to start empirical treatment, physicians should also consider the risk profile for STDs. A more elaborate diagnostic assessment is often necessary because incorrect diagnosis and pid management can cause unnecessary morbidity. For example, the presence of signs of inflammation of the lower tract (predominance of leukocytes in vaginal secretions, cervical exudations or cervical friability), in addition to one of the three minimum criteria, increases the specificity of the diagnosis. One or more of the following additional criteria can be used to improve the specificity of minimum clinical criteria and support a diagnosis of PID: oral temperature >101°F (>38.3°C); abnormal cervical mucopurulent discharge or cervical coldness; presence of abundant numbers of WBC under vaginal fluid saline microscopy; high erythrocyte sedimentation rate; Protein high; and laboratory documentation of cervical cervical with N. gonorrhea or C. trachomatis. Most women with PID have mucopurulent cervical discharge or evidence of WBCs in a microscopic evaluation of a saline preparation of vaginal fluid (i.e., wet preparation). If cervical discharge appears normal and WBCs are not observed in wet vaginal fluid preparation, diagnosis of ID is unlikely, and alternative causes of pain should be considered. A wet preparation of vaginal fluid can also detect the presence of concomitant infections (e.g., BV and trichomoniasis). The most specific criteria for the diagnosis of PID include: endometrial biopsy with histopathological evidence of endometritis; transvaginal sonography or magnetic resonance imaging techniques showing thick, fluid-filled tubes with or without free pelvic fluid or tube-ovarian complex, or Doppler studies suggesting pelvic infection (e.g., tubal hyperemia); or laparoscopic findings consistent with PID. A diagnostic evaluation that includes some of these more extensive procedures may be warranted in some cases. Endometrial biopsy is justified in women undergoing laparoscopy who do not have visual evidence of salpingitis, as endometritis is the only sign of PID for some women. Treatment PID treatment regimens should provide empirical and broad coverage of probable pathogens. Several parenteral and oral antimicrobial regimens have been effective in obtaining clinical and microbiological cure in randomized clinical trials with short-term follow-up (741,742). However, only a limited number of investigations evaluated and compared these regimens with regard to the elimination of infection in endometrial and fallopian tubes or determined the incidence of long-term complications (e.g., tubal infertility and ectopic pregnancy) after antimicrobial regimens (730,735,743). The optimal treatment regimen and long-term outcome of early treatment of women with subclinical PID are unknown. All regimens used to treat PID should also be effective against N. gonorrhea and C. trachomatis because negative endocervical screening for these organisms does not exclude infection of the reproductive upper tract. The need to eradicate anaerobes from women who have PID has not been definitively determined. Anaerobic bacteria have been isolated from the upper reproductive tract of women who have ID, and data from in vitro studies have revealed that some anaerobic (e.g., bacteroid fragilis) can cause tubal and epithelial destruction. BV is present in many women who have PID (731,734). Until treatment regimens that do not cover anaerobic microbes have been shown to prevent long-term sequelae (e.g., infertility and ectopic pregnancy) as well as regimens that are effective against these microbes, the use of regimens with anaerobic activity should be considered. Treatment should be started that the presumptuous diagnosis is made, as the prevention of long-term sequelae depends on the early administration of appropriate antibiotics. When When a treatment regimen, health care providers should consider availability, cost and acceptance of the patient (742). In women with mild or moderate clinical severity, parenteral and oral regimens seem to have similar efficacy. The decision as to whether hospitalization is necessary should be based on the judgment of the provider and whether the woman meets any of the following suggested criteria: surgical emergencies (e.g., appendicitis) cannot be excluded; tube-ovary abscess; pregnancy; severe illness, nausea and vomiting, or high fever; unable to follow or tolerate an outpatient oral regimen; or no clinical response to oral antimicrobial therapy. There is no evidence to suggest that adolescents have improved the outcomes of hospitalization for DPI treatment, and the clinical response to outpatient treatment is similar among younger and older women. The decision to hospitalize adolescents with acute PID should be based on the same criteria used for older women. Parenteral Treatment Several randomized trials have demonstrated the efficacy of parenteral regimens (734,741,742). Clinical experience should guide decisions regarding the transition to oral therapy, which can usually be initiated within 24 to 48 hours of clinical improvement. In women with tube-ovary abscesses, it is recommended at least 24 hours of hospitalized observation. Cefotetan 2 g IV every 12 hours PLUS Doxycycline 100 mg oral or IV every 12 hours OR Cefoxitin 2 g IV every 6 hours MORE Doxycycline 100 mg oral or IV every 1 2 hours OR Clindamycin 900 mg IV every 8 hours PLUS Gentamicin IV or IM load dose (2 mg/kg), followed by a maintenance dose (1.5 mg/kg) every 8 hours. The single daily dose (3-5 mg/kg) can be replaced. Due to pain associated with intravenous infusion, doxycycline should be given orally when possible. Oral and IV administration of doxycycline provides similar bioavailability. Although the use of a single daily dose of gentamicin has not been evaluated for the treatment of PID, it is effective in similar situations. When using parenteral cefothetan or cefoxitin regimens, oral therapy with doxycycline 100 mg twice daily can be used 24-48 hours after clinical improvement to complete the 14 days of therapy. For the clindamicin/gentamicin regimen, oral therapy with clndamycin (450 mg orally four times a day) or doxycycline (100 mg twice daily) can be used to complete the 14 days of therapy. However, when tubo-ovarian abscess is present, clindamycin (450 mg orally four times a day) or metronidazole (500 mg twice daily) should be used to complete at least 14 days of doxycycline therapy to provide more effective anaerobic coverage than just doxycycline. Limited data are available to support the use of other second- or third-generation parenteral cefosporins (e.g., ceftizoxime, ceftriaxone). In addition, these cephalosporins are less active than cefotetan or cefoxitin against anaerobic bacteria. Alternative Alternative Parenteral Schemes in addition to doxycycline has been investigated in at least one clinical trial and has broad spectrum coverage (744). Ampicillin/sulbactam plus doxycycline is effective against C. trachomatis, N. gonorrhoeae and anaerobes in women with tube-ovary abscess. Another study demonstrated high rates of short-term clinical cure with azithromycin, either as monotherapy for 1 week (500 mg IV daily for 1 or 2 doses followed by 250 mg orally for 5 to 6 days) or combined with a 12-day course of metronidazole (745). Limited data are available to support the use of other parenteral regimens. Ampicillin/Sulbactam 3 g IV every 6 hours PLUS Doxycycline 100 mg oral or IV every 12 hours Intramuscular/Oral Treatment Intramuscular/oral therapy may be considered for women with mild to moderately severe acute PID, as clinical outcomes among women treated with these regimens are similar to those treated with intravenous therapy (729). Women who do not respond to IM/oral therapy within 72 hours should be reevaluated to confirm the diagnosis and intravenous therapy should be administered. Ceftriaxone 250 mgS IM in a single dose PLUS Doxycycline 100 mg orally twice daily for 14 days COM* or WITHOUT Metronidazole 500 mg orally twice daily for 14 days OR Cefoxitin 2 g IM in a single dose and Probenecid, 1 g administered orally simultaneously in a single dose PLUS Doxycycline 100 mg orally twice daily for 14 days WITH or WITHOUT Metronidazole 500 mg orally twice daily for 14 days OR Other third generation parenteral cephalosporin (e.g., ceftizoxime or cefotaxime) PLUS Doxycycline 100 mg orally twice daily for 14 days COM* or WITHOUT Metronidazole 500 mg orally twice daily for 14 days *Recommended third generation cefsporins are limited in anaerobes coverage. Therefore, until it is known that prolonged anaerobic coverage is not important for the treatment of acute PID, the addition of metronidazole to third-generation cephalosporin treatment regimens should be considered (Source: Walker CK, Wiesenfeld HC. Antibiotic therapy for acute pelvic inflammatory disease: the CDC's 2006 Guidelines for the Treatment of Sexually Transmitted Diseases. Clin Infect Dis 2007;28[Supp 1]:S29-36). These regimens provide coverage against frequent etiological agents of PID, but the ideal choice of cephalosporin is unclear. Cefoxitin, a second-generation cephalosporin, has better anaerobic coverage than ceftriaxone, and in combination with sondanecide and doxycycline has been effective in short-term clinical response in women with PID. Ceftriaxone has better coverage against N. gonorrhoeae. The addition of metronidazole will also effectively treat BV, which is often associated with PID. Alternative IM/Oral Regimens Although information on other MUs and oral regimens is limited, some have undergone at least one demonstrated broad-spectrum coverage. Azithromycin demonstrated short-term clinical efficacy in a randomized trial when used as monotherapy monotherapy mg IV daily for 1-2 doses, followed by 250 mg per day orally for 12-14 days) or in combination with metronidazole (745), and in another study, was effective when used 1 g orally once a week for 2 weeks in combination with ceftriaxone 250 mg IM single dose (746). When considering these alternative regimens, the addition of metronidazole should be considered to provide anaerobic coverage. No data were published on the use of oral cephalosporins for the treatment of PID. As a result of the emergence of quinolone-resistant N. gonorrhea, regimens including a quinolone agent are no longer routinely recommended for pid treatment. If allergy prevents the use of cephalosporin therapy, if community prevalence and individual risk of gonorrhea are low, and if follow-up is likely, the use of fluoroquinolones for 14 days (levofloxacin 500 mg orally once a day, ofloxacin 400 mg twice a day, or moxifloxacin 400 mg orláládis once a day) with metronidazole for 14 days (500 mg orally twice a day) can be considered (747-749). Diagnostic tests for gonorrhea should be obtained before instituting therapy, and people should be managed as follows. If gonorrhea culture is positive, treatment should be based on antimicrobial susceptibility test results. If the isolate is determined as quinolone-resistant n. gonorrhea (QRNG) or if antimicrobial susceptibility cannot be assessed (e.g., if only the NAAT test is available), consultation with an infectious disease specialist is recommended. Other management considerations To minimize transmission of the disease, women should be instructed to abstain from sexual intercourse until therapy is completed, symptoms have been resolved, and sexual partners have been treated appropriately (see chlamydia and gonorrhea sections). All women who have been diagnosed with acute PID should be tested for HIV, as well as CG and chlamydia, using NAAT. Follow-up Women should demonstrate clinical improvement (e.g., deference; reduction of direct or rebound abdominal tenderness; and reduced sensitivity of uterine, adnexal, and cervical movement) within 3 days of initiation of therapy. If there is no clinical improvement, clinical improvement within 72 hours of IM/oral outpatient therapy, hospitalization, antimicrobial regimen evaluation, and additional diagnoses (including consideration of diagnostic laparoscopy for alternative diagnoses) has been recommended. All women who were diagnosed with ChLAMyC or gonococcal PID should be retested 3 months after treatment, regardless of whether their sexual partners were treated (480). If the new test is not possible at 3 months, these women should be retested whenever they present for medical care in the 12 months following treatment. Partner management Men who had sexual contact with a woman with PID during the 60 days prior to her onset of symptoms should be evaluated, tested and treated presumably for chlamydia and gonorrhea, regardless of the etiology of PID PID pathogens isolated from women. If a woman's last sexual intercourse was >60 days before symptom son-in-between or diagnosed, the most recent sexual partner should be treated. Male partners of

women who have PID caused by C. trachomatis and/or N. gonorrhoeae are often asymptomatic. Arrangements should be made to connect male partners to care. If the connection is delayed or unlikely, PtSD and improved referral are alternative approaches to the treatment of male partners of women who have chlamydia or gonococcal infections (see Partner Services) (93.94). Partners should be instructed to abstain from sexual intercourse until they and their sexual partners have been treated appropriately (i.e. until therapy is completed and symptoms have resolved, if originally present). Special Considerations Allergy, Intolerance and Adverse Reactions Cross-reactivity between penicillins and cephalosporins is <2;5% in people with a history of penicillin allergy (428-431,464). The risk of cross-reactivity of penicillin is higher with first-generation cephalosporins, but is negligible among most second-generation cefitins (cefoxitin) and all third-generation ceftriaxone (ceftriaxone) cefosporins (428-431) (see Management of People Who Have A History of Penicillin Allergy). Pregnant pregnancies suspected of having IPD are at high risk of maternal morbidity and preterm delivery. These women should be hospitalized and treated with intravenous antibiotics. HIV infection The differences in clinical manifestations of PID among women with HIV infection and women without HIV infection have not been well delineated. In initial observational studies, women with HIV infection and PID were more likely to require surgical intervention. More comprehensive observational and controlled studies have shown that women with HIV infection and PID have similar symptoms when compared to HIV-negative women with PID (266,750,751), except that they are more likely to have a tube-ovary abscess; women with HIV infection responded equally well to parenteral and antibiotic/iM/oral regimens recommended as women without HIV infection. Microbiological findings for women with HIV infection and women without HIV infection were similar, except that women with HIV infection had higher rates of concomitant M. hominis and streptococcal infections. These data are insufficient to determine whether women with HIV infection and PID require more aggressive management (e.g., hospitalization or intravenous antimicrobial regimens). Intrauterine contraceptive devices IUD is one of the most effective contraceptive methods. IUDs containing copper and releasing levonorgestrel are available in the United States. The risk of PID associated with the use of DI is mainly confined to the first 3 weeks after (752,753). If an IUD user receives a PID diagnosis, the DU does not need to be removed (63). However, the woman should receive treatment according to these recommendations and should have close clinical follow-up. If there is no clinical clinic occurs within 48-72 hours after the start of treatment, providers should consider removing the IUD. A systematic review of the evidence found that treatment outcomes generally do not differ between women with IUD who retained IUD and those who had the IUD removed (754). These studies mainly included women using copper or other non-nium IUDs. There are no studies on treatment outcomes in women using levonorgestrel-releasing OU. Next next