“Review of Sexually Transmitted Diseases”

May 2013

This lesson reviews the most common STDs. Our goal is to provide information that may be shared with patients. This lesson provides 1.25 hours (0.125 CEUs) of credit, and is intended for pharmacists in all practice settings.

The objectives of this lesson are such that upon completion the participant will be able to:

1. List STDs & their primary transmission modes.
2. Relate the epidemiology of the STDs.
3. Recognize the responsible microorganisms associated with the STDs.
4. State the symptoms, signs & diagnosis of the STDs.
5. Describe the treatment options associated with the STDs.

This is a subscription program. To get continuing education credit, you must subscribe to the program, or pay fee for individual lessons.

Future topics include:

- Obesity & Its Management
- Pertussis Update
- New Drugs 2012/2013
CPE Monitor®.

All your credits are electronically transmitted to your CPE Monitor® account. To review your credits, log onto that account. If you want hard copy credit statements, the only way to get them is to download & print your credit history from your CPE Monitor® account.

MISSING A LESSON? GO TO OUR WEBSITE & DOWNLOAD WHAT YOU NEED (www.wfprofessional.com). WE NO LONGER HAVE REPRINTS AVAILABLE.

WHEN YOU SEND IN QUIZZES, ALWAYS KEEP A COPY. YOU MAY EMAIL OR FAX ANSWERS. FAX # IS 847-945-5037. OR SEND A CONVENTIONAL EMAIL WITH YOUR ANSWERS. (INFO@WFPROFESSIONAL.COM)

This lesson provides 1.25 hours (0.125 CEUs) of credit, and is intended for pharmacists in all practice settings. The program ID # for this lesson is 707-000-13-005-H01-P. Pharmacists completing this lesson by April 30, 2016 may receive full credit.

To obtain continuing education credit for this lesson, you must answer the questions on the quiz (70% correct required), and return the quiz. Should you score less than 70%, you will be asked to repeat the quiz. Computerized records are maintained for each participant.

If you have any comments, suggestions or questions, contact us at the above address, or call 1-847-945-8050. Please write your CPE Monitor ID Number & your CE PRN ID Number (the number that is on the top of the mailing label) in the indicated space on the quiz page (for continuous participants only).

All opinions expressed by the author/authors are strictly their own and are not necessarily approved or endorsed by W-F Professional Associates, Inc. Consult full prescribing information on any drugs or devices discussed.

CE PRN® (ISSN 0199-5006) is owned and published by W-F Professional Associates, Inc. 400 Lake Cook Road, Suite 207, Deerfield, Illinois 60015. William J. Feinberg, President. CE PRN® is published eleven times per year, monthly, January through November. Subscription rate is $110.00 per year. Second-Class Postage paid at Deerfield, Illinois 60015 and at additional mailing offices.

© 2013 by W-F Professional Associates, Inc. All rights reserved. None of the contents of this publication may be reproduced in any form without the written permission of the publisher. POSTMASTER: Send all address changes to W-F Professional Associates, Inc., 400 Lake Cook Road, Suite 207, Deerfield, IL 60015.

May 2013
INTRODUCTION

Sexually transmitted diseases (STDs) or infections (STIs) are transmitted mainly during sexual contact with an infected person. The microorganisms may pass via semen, blood, contact with lesions caused by some of the diseases and vaginal or other body fluids. In some cases transmission may occur from mother to newborn. Infections may be acquired after a single contact. The causative microorganisms are bacteria, viruses, and parasites. STDs affect men, women, children and newborns. The incidents of the diseases have increased in recent years. Some carriers (i.e. syphilis and hepatitis B) may pass the microorganisms even though they are symptom free.

STDs are common worldwide. Accurate estimates in the U.S. remain unclear. However, the Center of Disease Control (CDC) reported that in 2010, over 19 million new cases were diagnosed. The total number of all cases during that year reached 100 million and treatment costs rose to $16 billion. All STDs are treatable and many can be cured.

A CDC study conducted in 2011 revealed that about 50% of teenagers had sexual intercourse; about 40% of these did not use condoms; and over 15% had four or more partners. Approximately 50% of new STD cases that occur each year in the U.S. affect patients aged 15-24 years. The actual number may be higher since many cases are obscure, either due to absence of symptoms or failure to report. In a study conducted by CDC eight years ago, it was found that out of 838 girls aged 14 to 19 who participated in the study, 18% of the girls tested positively to human papillomavirus (HPV), 4% to Chlamydia, 2.5% trichomoniasis, and 2% genital herpes. It is believed that the current numbers are similar.

Pregnancy does not provide immunity to mothers and their babies. Acquiring these diseases during pregnancy can detrimentally impact not only the mother’s health, but the fetus or newborn’s as well. The most commonly encountered STDs among pregnant women in the U.S. are bacterial vaginitis, genital herpes, Chlamydia, trichomoniasis, gonorrhea, hepatitis B, HIV/AIDS, and syphilis. Prevalence of STD complications among pregnant and non-pregnant women is similar. These include cervical cancer, chronic hepatitis, pelvic inflammatory diseases (PID), and infertility. Infections like syphilis can cross the placenta and infect the fetus while other infections that cause Chlamydia, gonorrhea, hepatitis B and genital herpes can infect the newborn during delivery. HIV can cross the placenta causing infection to the fetus before delivery. Infection may also occur during breast feeding.

Some STDs have no symptoms, and in some cases the patient may be infected without realizing the presence of the infection. Depending on the disease and its severity, symptoms of STDs include sores; warts near the mouth, anus, penis or vagina; inflammation near the penis or vagina; skin rash; burning sensation upon urination; weight loss; fever; chills; discharges from the penis or vagina; painful sex; severe itching near the vagina or male genital area; and swollen lymph nodes, especially in the groin. The symptoms may appear three days to three months after contact.

The most commonly encountered STDs in the U.S. are: Chlamydia, gonorrhea, syphilis, genital herpes, HPV, hepatitis B, HIV and trichomoniasis. However, there are other STDs that have been identified as well. These are: chancroid, candida albicans, genital warts, phthiriasis, granuloma inguinal, molluscum contagiosum, lymphogranuloma venereum, jock itch and pubic lice. In this lesson, emphasis will be placed on the most encountered STDs in the U.S.
CHLAMYDIA

Chlamydia trachomatis is caused by an obligate, intracellular pathogen (parasite) that resembles gram negative bacteria. These organisms coexist in an asymptomatic state within a specific host who may act as a natural source for them. They cannot be grown in culture media, but can be isolated while still in their host cells. This condition affects men and women. In 2011 over 1.4 million cases were reported to the CDC but the actual number that occurs annually in the U.S. is probably closer to 3 million. Many cases are not reported due to absence of symptoms. One in 15 sexually active females between the ages of 14-19 has Chlamydia.

Most infected individuals are asymptomatic. When and if symptoms manifest, they usually emerge several weeks after sexual contact. In males, development of urethritis occurs within 1 to 4 weeks. The onset consists of mild dysuria and slight discharge that may dry up and cause transient closure of the urethra. Epididymitis, proctitis and urethral stricture are the most common complications. In females, the infection begins at the cervix or urethra causing burning urination and vaginal discharge. The uterus and fallopian tubes may be affected resulting in infertility and pelvic inflammatory diseases. Infection during pregnancy can spread to the newborn during passage through the vagina. Eye infections can result.

Chlamydia is diagnosed by ruling out gonorrhea and by using DNA-based tests. Treatment consists of using antibiotics such as doxycycline, tetracycline, azithromycin, clarithromycin and erythromycin. Sexual partners should be treated to prevent reinfection and sexual contact should be refrained from during treatment.

GONORRHEA

Gonorrhea is an acute, contagious infection caused by a gram negative diplococcus, Neisseria gonorrhoeae. The CDC estimates that about 820,000 cases occur annually in the U.S. Less than half of these are reported. Only 321,000 cases were reported in 2011. In females the infection affects the reproductive tract---cervix, uterus, and fallopian tubes---as well as the urethra. In males, the disease begins in the urethra, but may spread and trigger epididymitis or gonorrheal prostatitis. The bacteria can affect the mouth, throat, eyes and anus in both males and females. Men have a 20% risk of contracting the disease from a single contact, whereas women have a 60-80% risk. A newborn may become infected during delivery, resulting in ophthalmia neonatorum or respiratory tract infections.

In males initial symptoms consist of dysuria followed by yellow mucopurulent discharge due to urethritis. These symptoms appear 2 to 5 days after infection. Spread of infection to the posterior urethra results in urgency for urination. Other symptoms include inflamed and swollen urethra, tender or swollen testicles and sore throat in the presence of gonococcal pharyngitis. In females the symptoms are mild, nonspecific and may be confused with other infections. The incubation period is 7-21 days after which symptoms may include dysuria, frequent urination and mucopurulent or purulent discharge that originates from the endocervix. Urethritis is common. Skene’s ducts and Bartholin’s glands may become involved. The main complications in females include endometritis, salpingitis (inflammation of the fallopian tubes) and pelvic inflammatory disease.

Diagnosis may be achieved through a gram-stained smear of urethral discharge from males or endocervical exudate in females. A newer technique is use of the polymerase chain reaction, a procedure using an enzymatic assay to replicate a short DNA template with primers in vitro.

With adequate treatment gonorrhea can be cured. A number of antibiotics such as penicillin,
tetracycline, fluoroquinolones and cefixime are no longer as effective due to resistance. Ceftriaxone, either alone or in combination with azithromycin or doxycycline, is used, and seems to obtain satisfactory results.

**SYPHILIS**

Syphilis is a contagious systemic infection caused by the spirochete *Treponema pallidum*. It is characterized by lesions that may affect any organ or tissue. When left untreated, it follows sequential clinical stages of active disease interspersed by periods of symptomless latency. *Treponema pallidum* is a thin delicate spirochete. Its only known natural host is humans. It cannot be cultured in artificial medium. The infection is usually transmitted by sexual contact. The infectious lesions are typically located on the genital organs, or transmitted to newborns during pregnancy or delivery, resulting in congenital syphilis. Because of their very invasive nature, the microorganisms rapidly penetrate the mucous membranes, and within hours following sexual contact they enter the lymph nodes and blood. They rapidly disseminate throughout the body, producing a systemic infection before the appearance of any symptoms. The body reacts to the presence of these spirochetes by producing antibodies that are helpful in the diagnosis of the disease. The incubation period depends on the number of microorganisms, but usually ranges from 3 to 4 weeks. There are 4 divided stages: primary, secondary, latent and tertiary syphilis. Symptoms depend on which of the four stages is present.

**Primary Syphilis**

Following the incubation period, a primary lesion known as a chancre, appears at the inoculation site. Appearance of the chancre indicates the beginning of the primary stage. The chancre is a painless, firm, papule at first, but then becomes eroded and ulcerated. It is infectious, and a microscopic examination of material from the chancre reveals the presence of spirochetes. Chancres heal spontaneously within 4 to 6 weeks, leaving no scars.

**Secondary Syphilis**

This stage may last from 6 weeks to 6 months and is manifested by the appearance of a diffused, rosy color skin rash within 6 to 12 weeks after the onset of the primary stage. The eruptions that may appear are papular and occasionally pustular in nature. They may heal without treatment or may persist for months. The healing may be transitory because a fresh rash may reoccur within weeks or months. The rash may appear on the palms, soles, face or scalp. These symptoms resolve without treatment.

**Latent Syphilis**

During this stage the infection becomes dormant and shows no symptoms. It starts in the untreated patient approximately one year after the onset of the initial infection. Appearance of infectious lesions is rare, and the patient may appear normal for years. The disease, if untreated, will progress to become tertiary syphilis. Since there are no symptoms, the infection is diagnosed by serologic tests.

**Tertiary Syphilis**

If untreated, syphilis may progress to the tertiary stage, which is a slow extension of the infection. It is characterized by the appearance of granulomatous, inflammatory lesions known as gummas. A gumma may develop in the skin and become ulcerative or may involve the skeletal system, mouth, nasal mucosa, lung, liver, testicles, or any part of the body. Cardiovascular
and neurosyphilis may develop.

Since the Treponema pallidum cannot be grown in culture, diagnosis of syphilis is achieved by serologic test, microscopic procedures, biopsy, and spinal fluid examination. Treatment of early infection of uncomplicated syphilis is a single dose of IM penicillin G or a single dose of oral azithromycin. Other choices are doxycycline and tetracycline. Ceftriaxone may also be used. Treatment of tertiary syphilis is more challenging due to poor penetration of penicillin into the CNS. Large doses of penicillin for a period of 10 days are recommended. Patients sensitive to penicillin may be placed on ceftriaxone therapy.

**GENITAL HERPES**

Genital herpes is a viral infection of the cutaneous membrane of the genitals. It is caused by herpes simplex virus type 2 (HSV-2). It spreads from one person to another through secretions from the mouth or genital area of infected individuals. Transmission may occur following contact with blisters or sores caused by the infection. The virus can spread even in the absence of lesions. Many patients may carry the disease but experience no sores and very mild or no symptoms. The incubation period is approximately 4 to 7 days, after which an inflamed area associated with itching and tingling develops on the skin and in the mucous membranes of the genital area. Within hours painful vesicles appear. The lesions then rupture and become ulcerative and crusted. In the absence of secondary bacterial infection, healing with scarring usually occurs in about 10 days. Upon healing, the viral infection becomes latent (dormant), but may recur at any time. It is not known what factors contribute to activation of latent virus, but fatigue, stress, and poor general health may play a role. Recurrent lesions are usually milder than the primary ones. Some patients may experience fever, malaise, anorexia and dysuria.

Diagnosis can be achieved by presence of the irritating lesions along with the use of tissue culture. A positive PCR test can be performed on fluid from the blisters.

There is no cure for genital herpes. Acyclovir, valacyclovir, and famciclovir are antiviral medications used in the treatment of primary and recurrent genital herpes infections. They shorten the clinical course of the disease, relieve pain and irritation, reduce viral shedding, enhance healing, and when used prophylactically, reduce the rate of recurrent infections.

**HUMAN PAPILLOMAVIRUS (HPV)**

HPV is the most common sexually transmitted virus in the U.S. The virus belongs to the papillomavirus group and establishes itself in the keratinocytes (keratin producing cells) of the skin or mucous membranes. The infection may be asymptomatic in the majority of cases, but can lead to warts, or cancer of the cervix, vulva, vagina, penis, anus and throat. About 30-40 types of HPV out of more than 120 types are sexually transmitted. Some skin warts caused by the virus may become cancerous. The infection is transmitted during sexual contact, and may occur even if one partner is asymptomatic. Unlike many STDs, HPV is rarely passed to the newborn during delivery.

Symptoms of HPV are not severe, and the majority of patients are asymptomatic. It is estimated that the immune system eliminates the virus within two years in 90% of cases. However, it is difficult to predict which HPV patients will not be able to get rid of the virus.

HPV can be prevented by vaccination. This vaccine can provide protection against the most common types of HPV. The vaccine is administered as a series of 3 injections over a 6 month period.
Cervarix and Gardasil can protect females against cervical cancer, but Gardasil can provide protection against genital warts and cancer of the vagina, vulva, and anus. The vaccine is recommended to boys and girls at 11-12 years of age in order to give time for the development of immunity before they become sexually active. Men and women through the age of 26, as well as teen girls who were not vaccinated by age of 21, should be vaccinated. Likewise, teen boys and young men through the age of 21 should be vaccinated. Pap smear and HPV test checks can be utilized to detect early signs of cell changes in the cervix. It should be noted that pap smear is not useful in the detection of cancers other than cervical cancer.

There is no known method for curing the viral infection. However, health problems associated with HPV such as genital warts, abnormal cervical cells and cervical cancer may be treated. The infection often subsides due to the activity of the immune systems. The CDC estimates that 90% of the cases become clear of the infection within two years from the initial sexual contact.

**HEPATITIS B**

Hepatitis B is an infectious disease of the liver caused by Hepatitis B virus (HBV), a member of the Hepadnaviridae family. It can be acute, lasting a few weeks, or chronic that can be lifelong. In 2007 it was estimated that 420,000 new cases were reported. A large number of patients are carriers of this disease and experience no symptoms. However, they can spread it to others. Due to vaccination, the number of cases has declined by 82% since 1990. Currently, it is estimated that there are 800,000 to 1.4 million infected individuals in the U.S. Worldwide, chronic hepatitis affects about 350 million people and results in 620,000 annual deaths. Hepatitis B is transmitted among adults during sexual contact or utilization of contaminated syringes and needles. Semen, blood or other body fluids infected with HBV enter the body and trigger an infection. Infected females may pass the disease during birth. Sexual contacts account for about 66% of acute HBV. It has been reported that HBV is 50 to 100% more infectious than HIV. The infection is not spread by sharing eating utensils, breastfeeding, hugging, kissing, coughing, holding hands or sneezing.

Symptoms range from minimal (or none) to hepatic failure. The patient may experience nausea, vomiting, anorexia, jaundice, weakness, fatigue, and arthralgia. The disease is confirmed by the presence of HBsAg antibodies in the serum. The infection can be prevented by administering HBV vaccine to newborns, children, and adults, especially those who are at risk of acquiring the infection. Post exposure prophylaxis may be achieved by injecting hepatitis B immune globulin (HBIG).

**ACQUIRED IMMUNODEFICIENCY SYNDROME AIDS/HIV**

AIDS is a chronic infection, which can be life-threatening. It is caused by human immunodeficiency virus (HIV). It attacks the immune system of the body, leaving the patient vulnerable to opportunistic infections and other diseases such as cancer. The disease was recognized in the U.S. by the CDC in 1981. In 2010, it was estimated that about 34 million people have HIV worldwide, resulting in about 1.8 million deaths in 2011. This was a huge improvement from the 3.1 million deaths in 2001. In 2008, there were approximately 1.2 million Americans harboring HIV (seropositive), causing about 17,500 deaths. The main modes of transmission are:

1. Sexual contact with an infected individual,
2. Sharing blood-contaminated needles,
3. Transfusions of blood and blood products that are contaminated with HIV,

4. Mothers to children during pregnancy and delivery, and

5. Breastfeeding.

There is no risk in acquiring AIDS through contact with nasal secretion, saliva, sputum, sweat, tears or urine, unless these are contaminated with blood.

Symptoms are dependent on progression of the infection. The viral infection occurs in 3 stages: active, chronic or asymptomatic, and AIDS. Two to four weeks after contact, many individuals experience no symptoms, while 40-90% of cases develop flu-like symptoms such as fever, throat inflammation, headache, rash, nausea, and vomiting. These symptoms last for three weeks, during which the patient is seropositive. The chronic stage follows, which is asymptomatic, and if left untreated may last up to three years. At around the end of this stage the patient may experience weight loss, fever, GI disturbances and muscle pain. The last stage experienced is AIDS symptoms without the presence of opportunistic diseases or malignancies. These include fatigue, intermittent fever, weight loss, night sweats and anemia. Full-blown AIDS symptoms include all of the aforementioned along with the development of opportunistic infections and cancers.

HIV infection can be diagnosed by PCR testing for HIV, RNA, or DNA, or via testing for the P24 antigen.

There is neither a cure nor an effective vaccine for AIDS. Currently, a cocktail consisting of 3 antiretroviral mediators is used. A non-nucleoside reverse transcriptase inhibitor such as efavirenz and two nucleoside analogue reverse inhibitors such as zidovudine, and lamivudine can be given simultaneously.

**TRICHOMONIASIS**

Trichomoniasis infection is a common cause of vaginitis and is transmitted by sexual contact. It is caused by the parasite *Trichomonas vaginalis*, a single-celled flagellate protozoan found in the urinary tract of men and women. The microorganisms are detectable in women and may cause vaginitis, urethritis, and infection of the Bartholin’s and Skene’s glands. Even though *T. vaginalis* may cause urethritis, cystitis and prostatitis in men, the organisms are not detectable, and an infected male may remain asymptomatic for several years, yet transmit the infection to his partner. In females the presence of the microorganisms may be asymptomatic at first, but may cause the development of clinical symptoms of vaginitis at any time. *Trichomonas vaginalis* is characterized by a greenish-yellow, frothy vaginal discharge, vulvar itching, dysuria, and dyspareunia. The vaginal vulva and endocervix may be inflamed and may show red "strawberry" spots. A small percentage of males may become symptomatic and develop a transient non-specific urethritis accompanied by dysuria, mild urethral irritation and slight mucoid discharge, especially in the morning. The disease is diagnosed by identifying the flagella through microscopic examination of vaginal, urethral, or prostatic secretions. *T. vaginalis* is treated by the administration of metronidazole.

**Summary**

STDs are common globally and constitute a major public health problem. Many of these diseases can be cured. Some are non-curable. All are, for the most part, preventable.
Fill in the information below, answer questions and return Quiz Only for certification of participation to: CE PRN®, 400 Lake Cook Road, Suite 207, Deerfield, IL 60015.

NAME ________________________________ CE PRN I.D.# _____________________________
ADDRESS ______________________________ CITY __________________________ STATE _________ ZIP __________
CPEMonitor ID __________________________ Birthdate (MM/DD) ________________________
ARE YOU LICENSED IN FLORIDA? IF YES, FL LIC # ________________________________
EMAIL Address (we need this) ______________________________

LESSON EVALUATION
Please fill out this section as a means of evaluating this lesson. The information will aid us in improving future efforts. Either circle the appropriate evaluation answer, or rate the item from 1 to 7 (1 is the lowest rating; 7 is the highest).

1. Does the program meet the learning objectives?
   List STDs & their primary transmission modes YES NO
   Relate the epidemiology of the STDs YES NO
   Recognize the responsible microorganisms for the STDs YES NO
   State symptoms, signs & diagnosis of the STDs YES NO
   Describe treatment options for the STDs YES NO

2. Was the program independent & non-commercial YES NO

3. Relevance of topic 1 2 3 4 5 6 7

4. What did you like most about this lesson? ___________________________________________

5. What did you like least about this lesson? ___________________________________________

Please Mark the Correct Answer(s)

1. Which statement is correct about STDs?
   A. Transmitted only via sexual contact
   B. Do not affect newborns
   C. All are curable
   D. STDs affect males & females

2. Which statement is false about chlamydia?
   A. Causative organisms can be grown in culture media
   B. Causative organisms resemble gram negative bacteria
   C. All infected patients are asymptomatic
   D. The most common complication in males is epididymitis

3. Gonorrhea:
   A. Is a viral infection
   B. Is characterized by a yellow mucopurulent vaginal discharge
   C. Has an incubation period of 2 months
   D. Infection subsides in 30 days without treatment & patient develops immunity

4. Which statement is true about HBV?
   A. Transmission occurs through ingestion of contaminated food
   B. Transmission occurs through kissing
   C. It is caused by a parasite found in feces
   D. Can be prevented with vaccination

5. Gummas appear in:
   A. Tertiary syphilis  B. Primary syphilis  
   C. Latent syphilis  D. Genital herpes

6. Which statement is false about genital herpes?
   A. The infection causes initial lesions that provoke itching
   B. It can be transmitted even in the absence of lesions
   C. It is curable
   D. The infection becomes dormant after the disappearance of the initial lesions

7. Regarding syphilis:
   A. It is symptomless for first 60 days after sexual contact
   B. Infection is limited to sexual areas
   C. Can be transmitted to newborns during delivery
   D. Causes no complications

8. AIDS may be treated by using a combination of a non-nucleoside reverse transcriptase inhibitor & nucleoside analogue reverse inhibitors.
   A. True  B. False

9. Trichomoniasis is:
   A. Caused by a single celled flagellate
   B. Treated with acyclovir
   C. Symptomless
   D. Limited to females

10. Which statement is true about HPV?
    A. No vaccine available for young teenagers
    B. The infection always becomes dormant for many years
    C. Cervical cancer is the main complication
    D. All types of HPV are sexually transmitted
Fax 847-945-5037

Program ID #707-000-13-005-H01-P.
CE Provider Tracking # with CE Broker.com is 50-3170.

CE PRN® is a publication of W-F Professional Associates, Inc.

W-F Professional Associates, Inc. is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmaceutical education. Providers who are accredited by ACPE are recognized by All States for fulfilling CE requirements. Pharmacists completing this course by April 30, 2016 may receive full credit. This lesson furnishes 1.25 hours (0.125 CEUs) of credit.

CPE Monitor®....
All your credits are electronically transmitted to your CPE Monitor® account. You may review your credits by logging onto that account. We no longer furnish Credit Statements. You are able to download & print credit history from your CPE Monitor® account.

If you have not signed up with CPE MONITOR, do it now.
We must have your CPE MONITOR ID# & your birthday (MM/DD) (day & month only).
Always, continue to send quiz answers to us like in the past.
YOUR CE CREDIT IS STILL BASED ON YOUR SENDING IN THE QUIZ ANSWERS TO US.
We no longer send out paper Credit Statements.
Your credit history is available from the CPE MONITOR site, using your account information.
NO PRINTED CREDIT STATEMENTS FROM CE PROVIDERS.