

FEC-D Treatment

This handout gives general information about this cancer treatment.

You will learn:

- · who to contact for help
- · what the treatment is
- how it is given
- what to expect while on treatment



This handout was created by Ontario Health (Cancer Care Ontario) together with patients and their caregivers who have also gone through cancer treatment. It is meant to help support you through your cancer treatment and answer some of your questions.

This information does not replace the advice of your health care team. Always talk to your health care team about your treatment.

Who do I contact if I have questions or need help?			
My cancer health care provider is:			
During the day I should contact:			
Evenings, weekends and holidays:			

What is this treatment?

FEC-D is the code name of your breast cancer treatment regimen.

A regimen is a combination of medications to treat cancer.

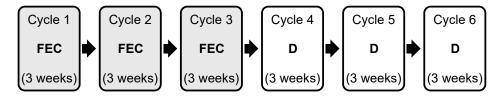
This regimen name is made up of one or more letters from the names of the 4 medications in your treatment.

Here are the names of the medications in this regimen:

FEC = Fluorouracil (also called 5-FU), **E**pirubicin, and **C**yclophosphamide **D = D**ocetaxel (also called Taxotere®)

For most people, treatment lasts **18 weeks**. The treatment is divided into **6 cycles**. Each cycle is **3 weeks** long.

Here is a picture of the schedule for FEC-D treatment:



During each 3-week cycle, you will have FEC or D treatment on day 1 at the hospital.

Each cycle looks like this:

Day 1	2	3	4	5	6	7
Treatment Day: Go to the	No FEC or D					
hospital for FEC or D treatment	Treatment					
8	9	10	11	12	13	14
15	16	17	18	19	20	21



Remember To:

- ✓ Tell your health care team about all of the other medications you are taking.
- ✓ Keep taking other medications that have been prescribed for you, unless you have been told not to by your health care team.

Your health care team may ask you to have a blood test to check for DPD deficiency before starting treatment.

- DPD deficiency is when you have low or no activity of an enzyme called DPD (dihydropyrimidine dehydrogenase). A deficiency can cause you to have severe side effects from fluorouracil.
- See the <u>Testing for people taking capecitabine or 5-fluorouracil (5-FU) pamphlet</u> for more information.

You will have a blood test to check for hepatitis B before starting treatment. See the <u>Hepatitis B and Cancer Medications</u> pamphlet for more information.

How is this treatment given?

The medications in your treatment are given through an IV (injected into a vein) at the hospital.

Your health care team may suggest that you get a PICC line or a Port-a-Cath.

- These are special IV's used to give medicines and fluids into larger veins.
- A PICC or Port-a-Cath can be safer for some medications that can cause reactions when given through an IV in your hand.
- If you have a PICC or Port-a-Cath, you do not need an IV (needle) put into your arm every time you come for treatment.
- ✓ Talk to your healthcare team about the benefits and risks of a PICC or a Port-a-Cath to see if one of these options is right for you.

You will have a blood test before each treatment cycle to make sure it is safe for you to get treatment.

What other medications are given with this treatment?

To Prevent Nausea and Vomiting

You will be given medications to help prevent nausea (feeling like throwing up) and vomiting (throwing up) before they start.

• These are called anti-nausea medications and include medications such as ondansetron (Zofran®), granisetron (Kytril®), aprepitant (Emend®), olanzapine (Zyprexa®) or others.

To Prevent Allergic Reaction and Swelling

Before docetaxel (D), you will be given medication to help prevent allergic reactions and swelling.

- The medication is a corticosteroid such as dexamethasone.
- You will take the medication at home, starting 1 day before your docetaxel (D) treatment. You will take it the day of your treatment and you will keep taking it after your treatment as well.
- The medication will help to prevent allergic reaction and swelling before they start.

To Prevent Infection

You may also be given a medication after each treatment day or just after treatment cycles 4 to 6 to increase your white blood cell count (neutrophils). This helps to prevent infection and make sure it is safe for you to get your next treatment.

• The medication may be called filgrastim (such as Neupogen®, Grastofil®, or others) or pegfilgrastim (such as Neulasta®, Lapelga®, or others).

DO this while on treatment

- ✓ DO tell your health care team about any other medical conditions that you have such as heart, liver, bladder, kidney, skin and nerve problems, or any allergies or intolerances.
- ✓ DO check with your health care team before getting any vaccinations, surgery, dental work or other medical procedures, or if you have had surgery in the past 10 days.
- ✓ DO drink plenty of fluids (unless told differently) and pee often for 2 or 3 days after your FEC treatment to prevent bladder irritation. It is normal for your urine (pee) to be red for up to 2 days after your FEC treatment. Tell your health care team if your pee stays red for more than 2 days.
- ✓ DO protect your skin from the sun. Wear a long sleeved shirt, long pants and a hat. Apply sunscreen with UVA and UVB protection and an SPF of at least 30. Your skin may be more sensitive to the sun and you could develop a bad sunburn or rash more easily.
- ✓ DO talk to your health care team about your risk of getting other cancers and heart problems after this treatment.
- ✓ DO consider asking someone to drive you to and from the hospital on your treatment days. You may feel drowsy or dizzy after your treatment.

DO NOT do this while on treatment



- X DO NOT take any other medications, such as vitamins, over-the-counter (nonprescription) drugs, or natural health products without checking with your health care team.
- X DO NOT start any complementary or alternative therapies, such as acupuncture or homeopathic medications, without checking with your health care team.
- X DO NOT eat or drink grapefruit, starfruit, Seville oranges or their juices (or products that contain these) while on this treatment. They may increase side effects.
- X DO NOT smoke or drink alcohol while on treatment without talking to your health care team first. Smoking and drinking can make side effects worse and make your treatment not work as well.

Will this treatment interact with other medications or natural health products?

Yes, the medications in this regimen can interact with other medications, vitamins, foods and natural health products. Interactions can make the treatment not work as well or cause severe side effects.

Tell your health care team about all of your:

- prescription and over-the-counter (non-prescription) medications
- natural health products such as vitamins, herbal teas, homeopathic medicines, and other supplements

Check with your health care team before starting or stopping any of them.

- If you take seizure medications (such as phenytoin), your health care team may monitor your blood levels closely and may change your dose.
- If you are taking a blood thinner (such as warfarin), your health care team may need extra blood tests and may change your dose.



Talk to your health care team BEFORE taking or using these :

- Anti-inflammatory medications such as ibuprofen (Advil[®] or Motrin[®]), naproxen (Aleve[®]) or Aspirin[®].
- Over-the-counter products such as dimenhydrinate (Gravol[®])
- Natural health products such as St. John's Wort
- Supplements such as vitamin C
- Alcoholic drinks
- Tobacco
- All other drugs, such as marijuana or cannabis (medical or recreational)

What should I do if I feel unwell, have pain, a headache or a fever?

- ✓ **Always** check your temperature to see if you have a fever **before** taking any medications for fever or pain (such as acetaminophen (Tylenol®) or ibuprofen (Advil®)).
 - Fever can be a sign of infection that may need treatment right away.
 - If you take these medications before you check for fever, they may lower your temperature and you may not know you have an infection.

How to check for fever:

Keep a digital (electronic) thermometer at home and take your temperature if you feel hot or unwell (for example, chills, headache, mild pain).

- You have a fever if your temperature taken in your mouth (oral temperature) is:
 - 38.3°C (100.9°F) or higher at any time

OR

• 38.0°C (100.4°F) or higher for at least one hour.



If you do have a fever:

- ✓ Try to contact your health care team. If you are not able to talk to them for advice, you MUST get emergency medical help right away.
- ✓ Ask your health care team for the <u>Fever</u> pamphlet for more information.

If you do not have a fever but have mild symptoms such as headache or mild pain:

✓ Ask your health care team about the right medication for you. Acetaminophen (Tylenol®) is a safe choice for most people.



Talk to your health care team before you start taking ibuprofen (Advil[®], Motrin[®]), naproxen (Aleve[®]) or ASA (Aspirin[®]), as they may increase your chance of bleeding or interact with your cancer treatment.



Talk to your health care team if you already take **low dose aspirin** for a medical condition (such as a heart problem). It may still be safe to take.

How will this treatment affect sex, pregnancy and breast feeding?

Talk to your health care team about:

- How this treatment may affect your sexual health.
- Changes to your menstrual cycle (periods), if this applies to you.
- Symptoms of menopause such as hot flashes, vaginal dryness or changes in your mood, if this applies to you.
- How this treatment may affect your ability to have a baby, if this applies to you.

This treatment may harm an unborn baby. Tell your health care team if you or your partner are pregnant, become pregnant during treatment, or are breastfeeding.

- If there is **any** chance of pregnancy happening, you and your partner together must use **2 effective forms of birth control** at the same time while you are on treatment. Talk to your health care team about which birth control options are best for you, and how long you should use them after your last treatment dose.
- Do not use hormonal birth control (such as birth control pills), unless your health care team told you that they are safe. Talk to your health care team about the safest birth control for you.
- Do not breastfeed while on this treatment. Talk to your health care team about how long to wait before you start breastfeeding after your last treatment dose, if this applies to you.

What are the side effects of this treatment?

The following table lists side effects that you may have when getting FEC-D treatment. The table is set up to list the most common side effects first and the least common last. It is unlikely that you will have all of the side effects listed and you may have some that are not listed.

Read over the side effect table so that you know what to look for and when to get help. Refer to this table if you experience any side effects while on FEC-D treatment.

Very Common Side Effects (50 or more out of 100 people)		
Side effects and what to do	When to contact health care team	
Hair thinning or loss	Talk to your health care team if this	
(May be severe)	bothers you	
What to look for?		
 Your hair may become thin or fall out during or after treatment. In most cases, your hair will grow back after treatment. The texture or colour may change. In very rare cases, hair loss may be permanent. 		
What to do?		
 Use a gentle soft brush. Do not use hair sprays, bleaches, dyes and perms. 		
Nausea and vomiting	Talk to your	
(More likely with FEC)	healthcare team if nausea lasts	
What to look for?	more than 48 hours or	
 Nausea is feeling like you need to throw up. You may also feel light- headed. 	vomiting lasts more than 24 hours or if it is	
 You may feel nausea within hours to days after your treatment. 	severe	
What to do?		
To help prevent nausea:		
 It is easier to prevent nausea than to treat it once it happens. 		

Side effects and what to do	When to contact health care team
 If you were given anti-nausea medication(s), take them as prescribed, even if you do not feel like throwing up. Drink clear liquids and have small meals. Get fresh air and rest. Do not eat spicy, fried foods or foods with a strong smell. Limit caffeine (like coffee, tea) and avoid alcohol. 	
If you have nausea or vomiting:	
 Take your rescue (as-needed) anti-nausea medication(s) as prescribed. Ask your health care team for the <u>Nausea & Vomiting</u> pamphlet for more information. Talk to your health care team if: 	
 nausea lasts more than 48 hours vomiting lasts more than 24 hours or if it is severe 	
Low neutrophils (white blood cells) in the blood (neutropenia) (May be severe) When neutrophils are low, you are at risk of getting an infection more easily. Ask your health care team for the Neutropenia (Low white blood cell count) pamphlet for more information.	If you have a fever, try to contact your health care team If you are unable to talk to the team for advice,
What to look for?	you MUST get emergency medical help
 If you feel hot or unwell (for example if you have chills or a new cough), you must check your temperature to see if you have a fever. Do not take medications that treat a fever before you take your temperature (for example, Tylenol® (acetaminophen), or Advil® (ibuprofen)). Do not eat or drink anything hot or cold right before taking your temperature. 	right away.
You have a fever if your temperature taken in your mouth (oral temperature) is:	
 38.3°C (100.9°F) or higher at any time OR 38.0°C (100.4°F) or higher for at least one hour. 	

Side effects and what to do	When to contact health care team
What to do?	
If your health care team has told you that you have low neutrophils:	
 Wash your hands often to prevent infection. Check with your health care team before getting any vaccines, surgeries, medical procedures or visiting your dentist. Keep a digital thermometer at home so you can easily check for a fever. 	
If you have a fever:	
If you have a fever, try to contact your health care team. If you are unable to talk to the team for advice, you must get emergency medical help right away.	
Low platelets in the blood	Talk to your health care team
(May be severe)	if you have any
When your platelets are low, you are at risk for bleeding and bruising. Ask your health care team for the <u>Low Platelet Count</u> pamphlet for more information.	signs of bleeding. If you have bleeding that doesn't stop
What to look for?	or is severe (very heavy),
Watch for signs of bleeding:	you MUST get
 bleeding from your gums unusual or heavy nosebleeds bruising easily or more than normal black coloured stools (poo) or blood in your stools (poo) coughing up red or brown coloured mucus dizziness, constant headache or changes in your vision heavy vaginal bleeding red or pink coloured urine (pee), except for the 2 days after your FEC treatment 	emergency help right away.
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What to do?	

Cide offects and what to do	When to contact
Side effects and what to do	When to contact health care team
 prescriptions or over-the-counter medication. Check with your healthcare team before you go to the dentist. Take care of your mouth and use a soft toothbrush. Try to prevent cuts and bruises. Ask your health care team what activities are safe for you. Your treatment may have to be delayed if you have low platelets. Your health care team may recommend a blood transfusion. 	
If you have signs of bleeding:	
 If you have a small bleed, clean the area with soap and water or a saline (saltwater) rinse. Apply pressure for at least 10 minutes. 	
If you have bleeding that does not stop or is severe (very heavy), you must get emergency medical help right away.	
Fatigue	Talk to your health care team if it
(More likely with D)	does not improve
	or if it is severe
What to look for?	_
 What to look for? Feeling of tiredness or low energy that lasts a long time and does not go away with rest or sleep. 	· ·
 Feeling of tiredness or low energy that lasts a long time and does not go 	· ·
 Feeling of tiredness or low energy that lasts a long time and does not go away with rest or sleep. What to do? Be active. Aim to get 30 minutes of moderate exercise (you are able to talk comfortably while exercising) on most days. Check with your health care team before starting any new exercise. Pace yourself, do not rush. Put off less important activities. Rest when you need to. Ask family or friends to help you with things like housework, shopping, and 	1
 Feeling of tiredness or low energy that lasts a long time and does not go away with rest or sleep. What to do? Be active. Aim to get 30 minutes of moderate exercise (you are able to talk comfortably while exercising) on most days. Check with your health care team before starting any new exercise. Pace yourself, do not rush. Put off less important activities. Rest when you need to. 	

Very Common Side Effects (50 or more out of 100 people)		
Side effects and what to do	When to contact health care team	
 Mouth sores (More likely with FEC) What to look for? Round, painful, white or gray sores inside your mouth that can occur on the tongue, lips, gums, or inside your cheeks. In more severe cases they may make it hard to swallow, eat or brush your teeth. They may last for 3 days or longer. 	Talk to your health care team as soon as you notice mouth or lip sores or if it hurts to eat, drink or swallow	
 What to do? To help prevent mouth sores: Take care of your mouth by gently brushing and flossing regularly. Rinse your mouth often with a homemade mouthwash. To make a homemade mouthwash, mix 1 teaspoonful of baking soda and 1 teaspoonful of salt in 4 cups (1L) of water. Do not use store-bought mouthwashes, especially those with alcohol, because they may irritate your mouth. 		
 Avoid hot, spicy, acidic, hard or crunchy foods. Your doctor may prescribe a special mouthwash to relieve mouth sores and prevent infection. Talk to your health care team as soon as you notice mouth or lip sores or if it hurts to eat, drink or swallow. Ask your health care team for the Oral Care (Mouth Care) pamphlet for more information.		

Common Side Effects (25 to 49 out of 100 people)			
Side effects and what to do	When to contact health care team		
Neuropathy (Tingling, numb toes or fingers)	Talk to your health care team		
(More likely with D; May be severe)	especially if you		
What to look for?	have trouble doing tasks like		
 Numbness or tingling of your fingers and toes that may happen after starting docetaxel (the last 9 weeks of your treatment). It can also happen to other parts of your body Sometimes it can be painful and feel like burning sensation, which may be severe. 	doing up buttons, writing, moving, or if you have severe pain or numbness		
What to do?			
 Talk to your health care team if you have symptoms of neuropathy. Numbness and tingling may slowly get better after your treatment ends. 			
In rare cases, it may continue long after treatment ends. If you continue to have bothersome symptoms, talk to your health care team for advice.			
Rash; dry, itchy skin or skin sensitivity to sunlight	Talk to your health care team if it		
(More likely with D)	does not improve or if it is severe		
What to look for?	or in it io develo		
 You may have cracked, rough, flaking or peeling areas of the skin. Your skin may look red and feel warm, like a sunburn. Your skin may itch, burn, sting or feel very tender when touched. When your skin is exposed to the sun you may get an itchy, red rash that looks like a sunburn or other skin reactions. 			
What to do?			
To prevent and treat dry skin:			
 Use fragrance-free skin moisturizer every day. Protect your skin from the sun and the cold. When you are in the sun, wear long sleeved shirts, long pants and a hat. Use sunscreen with UVA and UVB protection and a SPF of at least 30. Use a lip balm with sunscreen on your lips 			

Common Side Effects (25 to 49 out of 100 people)		
Side effects and what to do	When to contact health care team	
 Avoid perfumed products and lotions that contain alcohol. Drink 6 to 8 cups of non-alcoholic, non-caffeinated liquids each day, unless your health care team has told you to drink more or less. 		
Rash may be severe in some rare cases and cause your skin to blister or peel. If this happens, get emergency medical help right away.		
Mild swelling	Talk to your health care team if it	
(More likely with D)	does not improve	
What to look for?	or if it is severe	
 You may have mild swelling or puffiness in your arms and/or legs. Rarely, this may be severe. 		
What to do?		
To help prevent swelling:		
Take your corticosteroid medication (dexamethasone) as prescribed.Eat a low-salt diet.		
If you have swelling:		
Wear loose-fitting clothing.For swollen legs or feet, keep your feet up when sitting.		
Diarrhea	Talk to your health care team	
(May be severe)	if no	
What to look for?	improvement after 24 hours of	
 Loose, watery, unformed stool (poo) that may happen days to weeks after you get your treatment. 	taking diarrhea medication or if severe (more than 7 times in	
What to do?	one day)	
If you have diarrhea:		

Common Side Effects (25 to 49 out of 100 people)		
Side effects and what to do	When to contact health care team	
 Take anti-diarrhea medication if your health care team prescribed it or told you to take it. Do not eat foods or drinks with artificial sweetener (like chewing gum or 'diet' drinks), coffee and alcohol. Eat many small meals and snacks instead of 2 or 3 large meals. Drink at least 6 to 8 cups of liquids each day, unless your health care team has told you to drink more or less. Talk to your health care team if you can't drink 6 to 8 cups of liquids each day when you have diarrhea. You may need to drink special liquids with salt and sugar, called Oral Rehydration Therapy. Talk to your health care team if your diarrhea does not improve after 24 hours of taking diarrhea medication or if you have diarrhea more than 7 times in one day. 		
Ask your health care team for the <u>Diarrhea</u> pamphlet for more information.		
Nail changes (More likely with D; May be severe)	Talk to your health care team if it does not improve	
What to look for?	or if it is severe	
 You may have changes in nail colour, pain or tenderness, swelling of cuticles, or loosening of nails. Nails will slowly return to normal after treatment ends. 		
What to do?		
 Moisturize your nails and cuticles. Do not use nail polish and fake fingernails until your nails have gone back to normal. Wear gloves when doing house chores or gardening. 		
Eye problems	Talk to your health	
What to look for?	care team as soon as possible	
 Your eyes may feel dry, irritated, or painful. They may look red and have a lot of tears. They may feel sensitive to light and your vision may be blurry. 		

Common Side Effects (25 to 49 out of 100 people)		
Side effects and what to do	When to contact health care team	
What to do?		
 Avoid wearing contact lenses. Wear sunglasses with UV protection. Use protective eyewear (goggles or helmet with face mask) when playing sports, mowing the lawn or doing anything that may get particles or fumes in your eyes. You may try artificial tears (eye drops) or ointment. 		

Less Common Side Effects (10 to 24 out of 100 people)		
Side effects and what to do	When to contact health care team	
Allergic reaction	Get emergency	
(More likely with D; May be severe)	medical help right away for	
What to look for?	severe symptoms	
 Fever, itchiness, rash, swollen lips, face or tongue, chest and throat tightness. It may happen during or shortly after your treatment is given to you and may be severe. 		
What to do?		
 Tell your nurse right away if you feel any signs of allergic reaction during or just after your treatment. Talk to your health care team for advice if you have a mild skin reaction. 		
Reactions at the injection site	Talk to your health	
(More likely with FEC)	care team if this bothers you	
What to look for?		
 Your skin may become red, itchy, bruised, and/or swollen where the injection was given. Site reactions are usually mild and go away within one to three days. 		
What to do?		
	1	

Less Common Side Effects (10 to 24 out of 100 people)				
Side effects and what to do	When to contact health care team			
If you have mild redness or discomfort at the site where the injection has been given during your FEC treatments, you may need to apply ice/cold compresses.				
Low appetite	Talk to your health			
(With FEC)	care team if it does not improve or if it is severe			
What to look for?	or in it is severe			
Loss of interest in food or not feeling hungry.Weight loss.				
What to do?				
 Try to eat your favourite foods. Eat small meals throughout the day. You may need to take meal supplements to help keep your weight up. Talk to your health care team if you have no appetite. 				
Ask your health care team for the <u>Loss of Appetite</u> pamphlet for more information.				
Mild joint, muscle pain or cramps	Talk to your health			
(More likely with D)	care team if it does not improve			
What to look for?	or if it is severe			
 New pain in your muscles or joints, muscle cramps, or feeling achy. 				
What to do?				
 Take pain medication (acetaminophen or opioids such as codeine, morphine, hydromorphone, oxycodone) as prescribed. Read the above section: "What should I do if I feel unwell, have pain, a headache or a fever?" before taking acetaminophen (Tylenol®), ibuprofen (Advil®, Motrin®), naproxen (Aleve®) or Aspirin. These medications may hide an infection that needs treatment or they may increase your risk of bleeding. Rest often and try light exercise (such as walking) as it may help. Ask your health care team for the Pain pamphlet for more information.				

Less Common Side Effects (10 to 24 out of 100 people)				
Side effects and what to do	When to contact health care team			
Rash on your hands and feet (hand-foot syndrome) (More likely with FEC) What to look for?	Talk to your health care team if it does not improve or if it is severe			
 Tingling or swelling of the skin on the palms of your hands and the bottoms of your feet. This can become painful, red and numb. In worse cases your skin may start to peel and you can get blisters or sores. This may happen days or weeks after the dose is given or after you start treatment. 				
What to do?				
To help prevent Hand-foot syndrome:				
 Do not do activities that cause rubbing or pressure on your skin, like heavy-duty washing, gripping tools, typing, playing musical instruments, and driving. Moisturize your hands and feet often, especially in the skin folds. Wear loose, comfortable footwear and clothes. Rest and try to keep off your feet. Do not let your hands and feet get too hot. 				
Ask your health care team for the <u>Hand-foot syndrome</u> pamphlet for more information.				

Other rare, but serious side effects are possible with this treatment.

If you have **any** of the following, talk to your cancer health care team or get emergency medical help right away:

- irregular heartbeat, shortness of breath or chest pain
- sudden, severe pain in your belly or arm
- severe headache, passing out (fainting) or seizure
- sudden confusion, trouble speaking, or difficulty moving your arms or legs
- coughing up blood or trouble breathing
- pain and swelling of a vein in your arm or leg
- problems with your balance, or weakness on one side of the body
- yellowish skin or eyes

- feeling the need to pee suddenly or frequently, pain/burning sensation when you pee, unusually dark pee or going pee less than usual
- severe bloating or feeling of fullness
- unusual or sudden weight gain
- · severe muscle pain, weakness or twitching
- pain, burning, redness, or swelling of your skin
 - in areas where you received radiation or
 - in a spot different from where medication was injected at a previous time.
- wounds that do not heal well

For more information on how to manage your symptoms ask your health care provider, or visit: https://www.cancercareontario.ca/symptoms.

Notes		

December 2023 Updated "How will this treatment affect sex, pregnancy and breast feeding?" section

For more links on how to manage your symptoms go to <u>www.cancercareontario.ca/symptoms</u>.

The information set out in the medication information sheets, regimen information sheets, and symptom management information(for patients) contained in the Drug Formulary (the "Formulary") is intended to be used by health professionals and patients for informational purposes only. The information is not intended to cover all possible uses, directions, precautions, drug interactions or side effects of a certain drug, nor should it be used to indicate that use of a particular drug is safe, appropriate or effective for a given condition.

A patient should always consult a healthcare provider if he/she has any questions regarding the information set out in the Formulary. The information in the Formulary is not intended to act as or replace medical advice and should not be relied upon in any such regard. All uses of the Formulary are subject to clinical judgment and actual prescribing patterns may not follow the information provided in the Formulary.