



**Name of Protocol:**  
**Second-line treatment of advanced non-small cell lung cancer (NSCLC) with pemetrexed**

**BC Cancer Agency**

**Protocol Code: LUAVPEM**

**ABOUT THIS MEDICATION**

**What is this drug used for?**

- Pemetrexed is a type of chemotherapy for non-small cell lung cancer (NSCLC).
- It is usually given after you have had at least one other type of chemotherapy.

**How does this drug work?**

- Pemetrexed belongs to a group of drugs called antimetabolites. These drugs disrupt the production of DNA and RNA, and may stop cancer cells from multiplying.

**INTENDED BENEFITS**

- Pemetrexed may slow the growth of the lung cancer and improve your symptoms.

**TREATMENT SUMMARY**

**What should I do before I get this drug?**

- You must take folic acid (a vitamin) and vitamin B12 to help protect your healthy cells from pemetrexed.
- You must take dexamethasone to help prevent skin rash.

<b>WHAT DO I NEED?</b>	<b>HOW DO I GET IT?</b>	<b>HOW SHOULD I TAKE IT?</b>
<b>folic acid</b> 0.4 mg tablets	at your regular pharmacy, without a prescription	<b>Take 1 tablet (0.4 mg) every day.</b> Start 1 week before your first treatment. Stop 3 weeks after your last treatment.
<b>vitamin B12</b> 1000 mcg (µg) injection	at your regular pharmacy, without a prescription, behind the pharmacy counter	<b>Your doctor or nurse will inject this into your muscle once every 9 weeks.</b> Start 1 week before your first treatment. Stop 3 weeks after your last treatment.
<b>dexamethasone</b> 4 mg tablets	at your regular pharmacy, with your doctor's prescription	<b>Take 1 tablet twice daily for 3 days each cycle,</b> unless otherwise instructed. Always take dexamethasone with food. Start the day before each treatment. Stop the day after each treatment.

**How is this drug given?**

- Pemetrexed is given by infusion (injection) into a vein.
- The infusion will last about 10 minutes.
- You will have an infusion every 3 weeks. These 3 weeks are called a cycle.

### What else will happen?

- You will see your doctor at least once per cycle, before getting your chemotherapy.
- You will have a blood test every week. The dose and timing of your chemotherapy may be changed based on your blood counts and/or other side effects.

### LUAVPEM Treatment Protocol

You may photocopy this calendar as needed for each cycle. Write in the correct dates, and be sure to add your doctor visits, blood tests, and vitamin B12 injections.

<b>Dates:</b>						
dexamethasone folic acid	<b>pemetrexed</b> dexamethasone folic acid	dexamethasone folic acid	folic acid	folic acid	folic acid	folic acid
<b>Dates:</b>						
folic acid	folic acid	folic acid	folic acid	folic acid	folic acid	folic acid
<b>Dates:</b>						
folic acid	folic acid	folic acid	folic acid	folic acid	folic acid	folic acid

This 21-day cycle will repeat up to 5 more times.

### SIDE EFFECTS AND WHAT TO DO ABOUT THEM

Side effects are listed in the following table in the order in which they may occur. Tips to help manage the side effects are included.

SERIOUS SIDE EFFECTS	MANAGEMENT
Your <b>white blood cells</b> may decrease 8-10 days after your treatment. They usually return to normal after your last treatment. White blood cells protect your body by fighting bacteria (germs) that cause infection. When they are low, <b>you are at greater risk of having an infection.</b>	To help prevent infection: <ul style="list-style-type: none"> <li>• Wash your hands often and always after using the bathroom.</li> <li>• Avoid crowds and people who are sick.</li> <li>• Call your doctor <b>immediately</b> at the first sign of an infection such as fever (over 100°F or 38°C by an oral thermometer), chills, cough, or burning when you pass urine.</li> </ul>
Your <b>platelets</b> may decrease after your treatment. They usually return to normal after	To help prevent bleeding problems: Try not to bruise, cut, or burn yourself.

<p>your last treatment. Platelets help to make your blood clot when you hurt yourself. <b>You may bruise or bleed more easily than usual.</b></p>	<ul style="list-style-type: none"> <li>• Clean your nose by blowing gently. Do not pick your nose.</li> <li>• Avoid constipation.</li> <li>• Brush your teeth gently with a soft toothbrush as your gums may bleed more easily.</li> </ul> <p>Some medications such as ASA (e.g., ASPIRIN®) or ibuprofen (e.g., ADVIL®) may increase your risk of bleeding.</p> <ul style="list-style-type: none"> <li>• Do not stop taking any medication that has been prescribed by your doctor (e.g., <b>ASA for your heart</b>).</li> <li>• For minor pain, try acetaminophen (e.g., TYLENOL®).</li> </ul>
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OTHER SIDE EFFECTS	MANAGEMENT
<p><b>Nausea and vomiting</b> may sometimes occur, and may last for 24 hours after your treatment.</p>	<p>You may be given a prescription for antinausea drug(s) to take before your chemotherapy treatment and/or at home. <b>It is easier to prevent nausea than treat it once it has occurred</b>, so follow directions closely.</p> <ul style="list-style-type: none"> <li>• Drink plenty of fluids.</li> <li>• Eat and drink often in small amounts.</li> <li>• Try the ideas in <i>Food Choices to Help Control Nausea</i>.*</li> </ul>
<p><b>Skin rashes</b> may sometimes occur.</p>	<p>You will be given dexamethasone, a steroid which will help decrease your chance of having a rash. A mild rash may still occur.</p> <p>To help itching:</p> <ul style="list-style-type: none"> <li>• You can use calamine lotion</li> <li>• If very irritating, call your doctor during office hours</li> </ul> <p>Otherwise make sure to mention it at you next visit</p>
<p><b>Diarrhea</b> may sometimes occur.</p>	<p>To help with diarrhea:</p> <ul style="list-style-type: none"> <li>• Drink plenty of fluids.</li> <li>• Eat and drink often in small amounts.</li> <li>• Avoid high fibre foods as outlined in <i>Food Ideas to Help with Diarrhea During Chemotherapy</i>.*</li> </ul>
<p><b>Constipation</b> may rarely occur.</p>	<p>To help with constipation:</p> <ul style="list-style-type: none"> <li>• Exercise if you can.</li> <li>• Drink plenty of fluids.</li> <li>• Try ideas in <i>Suggestions for Dealing with Constipation</i>.*</li> </ul>
<p><b>Loss of appetite and weight loss</b> are common and may persist long after discontinuation of pemetrexed.</p>	<p>Try the ideas in <i>Food Ideas to Help with Decreased Appetite</i>.*</p>
<p><b>Sore mouth</b> may sometimes</p>	<ul style="list-style-type: none"> <li>• Brush your teeth gently after eating and at bedtime</li> </ul>

<p>occur a few days after treatment. Mouth sores can occur on the tongue, the sides of the mouth, or in the throat.  <b>Mouth sores or bleeding gums can lead to an infection.</b></p>	<p>with a very soft toothbrush. If your gums bleed, use gauze instead of a brush. Use baking soda instead of toothpaste.</p> <ul style="list-style-type: none"> <li>• Make a mouthwash with ½ teaspoon baking soda or salt in 1 cup warm water and rinse several times a day.</li> <li>• Try the ideas in <i>Food Ideas for a Sore Mouth during Chemotherapy</i>.*</li> </ul>
<p><b>Tiredness</b> and lack of energy are common.</p>	<ul style="list-style-type: none"> <li>• Do not drive a car or operate machinery if you are feeling tired.</li> <li>• Try the ideas in <i>Your bank of energy savings: How people with cancer can handle fatigue</i>.*</li> </ul>
<p><b>Blood clots</b> can rarely occur. This is more likely to happen if you have had blood clots before. Signs to watch for include tenderness or hardness over a vein; calf tenderness; sudden onset of cough, chest pain or shortness of breath.</p>	<p>To help prevent blood clots:</p> <ul style="list-style-type: none"> <li>• Keep active.</li> <li>• Drink plenty of fluids.</li> <li>• Avoid tight clothing.</li> <li>• Do not sit with your legs crossed at the knees.</li> </ul>
<p><b>Hair loss</b> may rarely occur. Your hair will grow back once you stop treatment with pemetrexed. Colour and texture may change.</p>	<ul style="list-style-type: none"> <li>• Use a gentle shampoo and soft brush.</li> <li>• Care should be taken with use of hair spray, bleaches, dyes, and perms.</li> </ul>

\* ask your cancer nurse or pharmacist for a copy

## OTHER INSTRUCTIONS

- Other drugs, such as ibuprofen (ADVIL®), may **interact** with pemetrexed. Tell your doctor if you are taking this or any other drugs as you may need extra blood tests, your dose may need to be changed or the drug(s) may need to be held for a few days. Check with your doctor or pharmacist before you start taking any new drugs.
- Pemetrexed may damage sperm and may harm the baby if used during pregnancy. It is best to use **birth control** while being treated with pemetrexed and for **3 months afterward**. Tell your doctor right away if you or your partner becomes pregnant. Do not breast feed during treatment.
- **Tell** doctors or dentists that you are being treated with pemetrexed before you receive any treatment from them.

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**THE FOLLOWING INFORMATION IS VERY IMPORTANT**

**SEE YOUR DOCTOR OR GET EMERGENCY HELP IMMEDIATELY IF YOU HAVE:**

- Signs of a **stroke** such as sudden onset of: severe headache, eyesight changes, slurred speech, loss of coordination, weakness or numbness in arm or leg.
- Signs of an **infection** such as fever (over 100°F or 38°C by an oral thermometer); chills; cough; pain or burning when you pass urine.
- Signs of **bleeding problems** such as black, tarry stools; blood in urine; pinpoint red spots on skin.
- Signs of a **blood clot** such as tenderness or hardness over a vein, calf swelling and tenderness, sudden onset of cough, chest pain or shortness of breath.
- Signs of an **allergic reaction** (rare) soon after a treatment including dizziness, fast heart beat, face swelling or breathing problems.

**SEE YOUR DOCTOR AS SOON AS POSSIBLE (DURING OFFICE HOURS) IF YOU HAVE:**

- Signs of **anemia** such as unusual tiredness or weakness.
- Signs of **liver problems** such as yellow eyes or skin, white or clay-coloured stools.
- Increased **sore throat or mouth** that makes it difficult to swallow comfortably.

**CHECK WITH YOUR DOCTOR IF ANY OF THE FOLLOWING CONTINUE OR BOTHER YOU:**

- Uncontrolled nausea, vomiting, or diarrhea.
- Easy bruising or minor bleeding.
- Redness, swelling, pain or sores on your lips, tongue, mouth or throat.
- Skin rash or itching.

**If you experience symptoms or changes in your body that have not been described above but worry you, or if any symptoms are severe, contact:**

\_\_\_\_\_ at telephone number: \_\_\_\_\_