

For the Patient: ABVD

Other names: LYABVD

A	Doxorubicin (also known as ADRIAMYCIN®)
B	Bleomycin
V	Vinblastine
D	Dacarbazine (also known as DTIC)

Uses:

- ABVD is a drug treatment given for Hodgkin's disease with the expectation of killing cancer cells.
- ABVD is offered to patients with Hodgkin's Lymphoma

Treatment Plan:

- Your treatment plan consists of several (up to 6) chemotherapy cycles. Each cycle lasts 4 weeks (=28 days). For each cycle, you will have two treatments given 2 weeks apart (Day 1 and Day 15). Each treatment consists of four chemotherapy drugs and a medicine called hydrocortisone (a steroid) injected into the vein. Two weeks after the second treatment (i.e. Day 29), you will start the next cycle.
- The IV treatment takes about 3-4 hours. However, on Day 1 of each cycle, plan to spend part of that day at your treatment centre if you have a doctor's appointment and a blood test.
- Drugs:
 - Four chemotherapy drugs (doxorubicin, bleomycin, vinblastine, dacarbazine), and hydrocortisone are given as an IV injection in your arm on Day 1 and Day 15 of each cycle.
 - You take anti-nausea pills to help prevent nausea and vomiting. The anti-nausea prescription is filled at your drugstore.
 - During the course of your treatment, your cancer doctor may decide that you need a drug called filgrastim (also known as G-CSF, granulocyte colony stimulation factor) to improve your white blood cell count. If it is needed, the filgrastim is given as an injection under the skin (subcutaneous, SC) daily for 3 to 5 days, starting a few days after the chemotherapy (your doctor will specify when to start this). Your nurse will teach you or a family member how to give a SC injection. The filgrastim prescription is filled at your community pharmacy and, as it is not commonly available, the pharmacy may require 1-2 days to obtain the drug.

- A blood test is done on Day 1 of each cycle. Your doctor will determine whether you need filgrastim based on your blood counts; the dose of your chemotherapy may be changed based on your blood tests and/or other side effects.
- If needed, radiation therapy starts a few weeks after your last chemotherapy cycle is finished.

Instructions:

- Bring your anti-nausea drugs with you to take before each IV treatment on Day 1 and Day 15. You will also need to take your anti-nausea drugs at home after the chemotherapy. It is easier to prevent nausea than treat it once it has occurred, so follow directions closely.
- Call your cancer doctor immediately (day or night) at the first sign of any infection but especially if you have a fever over 38°C or 100°F.
- Check with your doctor or pharmacist before you start taking any new drugs. Many drugs such as barbiturates, digoxin (LANOXIN®), ciprofloxacin (CIPRO®) and similar antibiotics, phenytoin (DILANTIN®), metronidazole (FLAGYL®), ketoconazole (NIZORAL®), and similar antibiotics, and levodopa (SINEMET®, PROLOPA®) may interact with ABVD.
- You may drink small amounts of alcohol, as it will not affect the safety or effectiveness of your treatment.
- Tell other doctors or dentists that you are being treated with ABVD chemotherapy before you receive any treatment from them.
- Use effective contraception (birth control) if you could become pregnant or if your partner could become pregnant. Do not breast feed.

Serious Side Effects:

Unexpected and unlikely side effects can occur with any drug treatment. The ones listed below are particularly important as they are directly related to the common actions of the drugs in your treatment plan

- ***Infection:*** The number of white blood cells that help fight infections will be lowered by the treatment. Your blood count is expected to return to normal by Day 1 of the next cycle. If your white blood cell count becomes very low you could get a serious infection. The chance of a serious or life-threatening infection is approximately 2% with ABVD. **If you have a fever over 38°C or 100°F, call your cancer doctor immediately (24 hours a day) or go immediately to your nearest Hospital Emergency and tell the doctor you are on chemotherapy.**
- ***Allergic reaction:*** Bleomycin can cause an allergic reaction within hours of your treatment. Report any difficulty breathing, shortness of breath, wheezing, rash over the whole body, or swelling of the face to a doctor immediately.

- **Lung problems:** Report any shortness of breath, difficulty breathing or cough to your doctor as soon as possible.
- **Bleeding problems:** If you develop black tarry stools, blood in urine or pinpoint red spots on the skin, report them to your doctor immediately.
- **Tissue injury:** Doxorubicin, vinblastine and dacarbazine can cause tissue injury if they leak out of the vein while they are being given. Report any sensation of burning, stinging or pain to your chemotherapy nurse immediately.
- **Early menopause:** If you are a woman still having menstrual periods, ABVD may cause your ovaries to stop working, resulting in menopausal symptoms (such as hot flashes) and infertility. Your periods may stop. This may be permanent, especially if you are 40 years of age or older.
- **Heart Failure:** Rarely, doxorubicin can have an effect on the heart in some patients causing failure of the heart's pumping action which results in shortness of breath, fatigue and leg swelling. The heart failure rate is less than 2%. Report shortness of breath, chest pain, or a fast or uneven heart beat to your doctor immediately.
- **Oxygen:** May increase the risk of lung problems with bleomycin. Lung problems can occur months or years after treatment. Oxygen should only be given briefly in an emergency. Avoid activities that use increased oxygen pressure such as scuba diving for the rest of your life. You will be given a wallet card to carry, outlining the Bleomycin risk.
- **Smoking:** May increase the risk of lung problems with bleomycin.

Common Side Effects and Management:

SIDE EFFECT	MANAGEMENT
<p><u>Nausea and vomiting</u> can occur with this treatment and you will need to take anti-nausea drugs at the time of the injections.</p>	<p>You will be given a prescription for anti-nausea drugs to take before your IV treatment and afterwards at home.</p> <ul style="list-style-type: none"> • It is easier to prevent nausea than treat it once it has occurred, so follow directions closely. • Refer to the following pamphlets: <i>For the Patient: Managing Nausea; Chemotherapy & You; Food choices to help control nausea*</i>.
<p>Fever and chills may occur a few hours after treatment with bleomycin. They should last no longer than 48 hours.</p>	<ul style="list-style-type: none"> • Take acetaminophen (eg, TYLENOL®) every 3-4 hours.

SIDE EFFECT	MANAGEMENT
<p>Hair loss. Your hair will fall out 2-4 weeks after treatment begins. Your scalp may feel tender. You may lose hair on your face and body. Your hair will grow back once your treatments are over and sometimes between treatments. The colour and texture of the new hair growth may be different.</p>	<ul style="list-style-type: none"> • Shaving the head may be more comfortable. • Avoid hair spray, bleaches, dyes and perms. • Apply mineral oil to your scalp to reduce itching. • If you lose your eyelashes and eyebrows, protect your eyes from dust and grit with a broad-rimmed hat and glasses. • Consider cutting your hair short before it falls out • Ask your nurse about information on wigs and head coverings.
<p>Mouth sores may occur a few days after treatment. Mouth sores can occur on the tongue, gums, and sides of the mouth or in the throat. Mouth sores or bleeding gums can lead to an infection.</p>	<ul style="list-style-type: none"> • Brush your teeth gently after eating and at bedtime with a very soft toothbrush. If your gums bleed, use gauze instead of a brush. Use baking soda instead of toothpaste. • Try baking soda mouth rinses (using 1/2 tsp baking soda in 1 cup warm water) and rinse several times a day. Try ideas in <i>Easy to chew, easy to swallow food ideas*</i>. • Tell your doctor about a sore mouth, as your chemotherapy doses may need to be decreased if mouth sores are severe.
<p>Fatigue is common especially in the first week after your treatment. As the number of treatment cycles increase fatigue may get worse.</p>	<ul style="list-style-type: none"> • Your energy level will improve with time after treatment is completed. • Refer to pamphlet "<i>Yes I can: How people with cancer can handle fatigue</i>"**.
<p>Your platelets may decrease 5-10 days after your treatment. They will return to normal. Platelets help to make your blood clot when you hurt yourself. You may bruise or bleed more easily than usual.</p>	<p>To help prevent bleeding problems:</p> <ul style="list-style-type: none"> • Try not to bruise, cut or burn yourself. • Clean your nose by blowing gently; do not pick your nose. • Avoid constipation. • For minor pain use acetaminophen (eg, TYLENOL®). • Do not take common painkillers such as ASA (eg, ASPIRIN®) or ibuprofen (eg, ADVIL®).
<p>Severe constipation or stomach cramps could occur due to vinblastine.</p>	<ul style="list-style-type: none"> • See your doctor as soon as possible if you get severe constipation.
<p>Injection site pain or tenderness may occur where the needle was placed and it may extend up the arm.</p>	<ul style="list-style-type: none"> • Apply cool or warm compresses or soak in cool or warm water for 15-20 minutes several times a day.
<p>Your urine may be pink or reddish for 1-2 days after your treatment.</p>	<ul style="list-style-type: none"> • This is expected as doxorubicin is red and is passed in your urine.

SIDE EFFECT	MANAGEMENT
Your skin may darken in some areas such as your hands, elbows and knees. Dark lines may occur where you scratch or injure yourself. Your skin may thicken especially on your palms and fingers.	<ul style="list-style-type: none"> • This will slowly return to normal once you stop treatment with bleomycin and doxorubicin. • Avoid scratching. If your skin is itchy, take an antihistamine such as diphenhydramine (eg, BENADRYL®) 25 mg capsules. Most antihistamines cause drowsiness.
Numbness or tingling of fingers or toes could occur due to vinblastine.	<ul style="list-style-type: none"> • Inform your doctor at the time of your next visit if you develop numbness.
<u>Pain affecting joints</u> of the hands, knees and feet can occur following chemotherapy.	<ul style="list-style-type: none"> • Your family doctor can help you to manage symptoms of joint pain.
Your <u>skin may sunburn</u> easily during treatment with vinblastine and dacarbazine.	<ul style="list-style-type: none"> • To help prevent sunburn: • Avoid direct sunlight, sun lamps and tanning booths. • Wear a hat, long sleeves and long pants or skirt outside on sunny days. • Apply a sun block lotion with a SPF (sun protection factor) of at least 15.

*Available through your nurse or nutritionist

** Available through your nurse

If you experience symptoms or changes in your body that have not been described above but worry you, tell your doctor about them at the time of your next visit. If any symptoms are severe, contact

_____ at _____ telephone _____ number
