INTRAVENOUS CANCER TREATMENT EDUCATION

AAVD

Name of the regimen and cancer drugs

- Doxorubicin (DOK soh ROO bih sin): Adriamycin®
- Brentuximab vedotin (bren TUK sih mab veh DOH tin): Adcetris®
- Vinblastine (vin BLAS teen): Velban®
- Dacarbazine (duh KAR buh zeen): DTIC-DOME®

Your care team may refer to your treatment as AAVD. The regimen consists of 4 different anti-cancer therapies:

- A: Doxorubicin (**A**driamycin)
- A: Brentuximab vedotin (**A**dcetris)
- V: **V**inblastine
- D: **D**acarbazine

Common uses

This regimen is most commonly used to Hodkin's Lymphoma, but may be used for other diagnoses.

Treatment schedule

Your treatment will be given into your vein through an intravenous (IV) line. This may be into a short, flexible temporary catheter in your arm, or through a central venous catheter. A central venous catheter, or central line is a long, flexible IV tube that empties into a very large vein next to the heart. Talk with your care team to see which will be best for you and your treatment.

Each AAVD treatment is repeated every 28 days. This is known as one cycle. Your treatment may be given for a set number of cycles (usually 6 cycles for AAVD), or it may stop ealier if the drug or drugs stop working or you have side effects which stop you from continuing treatment.

☐ Brentuximab vedotin IV is given on days 1and 15.

☐ Doxorubicin IV is given on days 1and 15.

☐ Vinblastine IV is given on days 1and 15.

☐ Dacarbazine IV is given on days 1and 15.

Drug	Cycle 1	Day 1	2	3	4	...	15	16	17	18	...	28	Cycle 2 Day 1
Brentuximab vedotin		🟥					🟥						🟥
Doxorubicin		🟦					🟦						🟦
Vinblastine		⬛					⬛						⬛
Dacarbazine		🟪					🟪						🟪

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Other medications

Other medications may be ordered for you to prevent or treat certain side effects. These include:

	Instructions:
Growth factors	Growth factors, like filgrastim, pegfilgrastim, and others, are medications used to treat neutropenia and prevent infections. Neutropenia is a condition where there are lower-than-normal white blood cells caused by some type of chemotherapy. Growth factors help the bone marrow to make more white blood cells. ____________________ ____________________ ____________________ ____________________
Anti-nausea medications	You will receive medications to prevent nausea just before your cancer treatment. You may get prescriptions for other medications to take at home, as below: ____________________ ____________________ ____________________ ____________________
Medications to prevent allergic reactions	You will receive medications to prevent infusion related reactions prior to starting your cancer treatment. ____________________ ____________________ ____________________ ____________________

Possible drug interactions

- ☐ AAVD may interact with other drugs you are taking. Please inform your care providers of all prescription medicine, over-the-counter medications, vitamins, and herbal products that you take.
- ☐ Talk with your care provider or pharmacist before taking new medications, supplements, or receiving any vaccines.
- ☐ Grapefruit or grapefruit juice may interact with AAVD. Avoid eating or drinking these during your treatment.

Common Side Effects

Common side effects that have been known to happen in patients receiving AAVD are listed in the left side of this table. In some instances, the side effects may be reported less often but are still important to discuss. This table does not list all the known side effects for this therapy, only the ones that are experienced most often. Not every patient experiences every known side effect of a drug; even if you are taking the same drug as another patient, you may experience different side effects. Options to help manage any side effects that do occur are included on the right side of this table. These should be discussed with your care provider. If you experience any side effect you cannot manage or that is not listed here, contact your care provider.

Possible Side Effect	Management
Decreased white blood cells (WBCs) and increased risk for infection	Your WBCs should be monitored by a simple blood test. When your WBCs are low, you are at a greater risk of having an infection. Take the following precautions to protect yourself from infection. • Wash your hands often, especially before eating and after using the bathroom. • Avoid crowds and people with fevers, flu, or other infections. • Bathe often for good personal hygiene. Contact your care team if you experience any signs or symptoms of an infection such as: • Fever (temperature more than 100.4°F or 38°C) • Chills • Sore throat • Burning when peeing • Tiredness that is worse than normal • A sore that becomes red, is draining, or does not heal. Check with your care team before taking any medicine for a fever or chills.
Numbness or tingling in hands and feet	Report changes in your sense of touch, such as a burning feeling, pain on the skin, or weakness.
Constipation	Keep track of how many bowel movements you have each day. • Drink 8-10 (8-ounce) glasses of water or fluid each day unless your care team has asked you to limit your fluid intake • Stay active and exercise, if possible • Eat foods high in fiber like raw fruits and vegetables Contact your care team if you have not had a bowel movement in 3 or more days. Your care team may recommend over-the-counter medications to help with constipation. A daily stool softener such as docusate (Colace®) and/or laxative such as senna (Senakot®) may be helpful. If these do not help within 48 hours, tell your care team.

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Possible Side Effect	Management
Nausea or vomiting	• Take all medications as prescribed to help prevent and lessen symptoms of nausea and vomiting. • Eat and drink slowly. • Drink 8-10 (8-ounce) glasses of water and/or fluid (soup or broth) each day unless your care team has instructed you to limit your fluid intake. • Eat small, frequent meals throughout the day rather than a few large meals. • Eat bland foods; avoid spicy, fried, and greasy foods. • Avoid intense exercise immediately after eating. • Don't lay down right away after eating. • Wear loose fitting clothing for comfort. • Avoid strong odors. Consider getting fresh air and try deep breathing. Let your care team know if you have nausea or vomiting. Your care team may prescribe medication to help with the symptoms.
Fatigue	• You may be more tired than usual or have less energy • Stay as active as possible, but know it is okay to rest as needed • Try to do some type of moderate activity every day • Conserve your energy. Plan your activities and do them at a time of day when you feel a bit more energetic • Follow a healthy diet and stay hydrated • Accept help from family and friends • Find healthy ways to manage stress, such as meditation, journaling, yoga, and guided imagery • Develop good sleeping habits, limit napping during the day to help you sleep better at night • Avoid operating heavy machinery if you feel too tired • Contact your care team if you experience extreme fatigue that prevents you from doing your normal daily activities
Diarrhea (loose and/or urgent bowel movements)	Monitor how many bowel movements you have each day. • Drink 8-10 (8-ounce) glasses of water or fluid each day unless your care team has asked you to limit your fluid intake. • Eat small, frequent meals throughout the day rather than a few large meals. • Eat bland, low-fiber foods (such as bananas, applesauce, potatoes, chicken, rice, and toast). • Avoid high fiber foods, such as raw vegetables and fruits and whole grains. • Avoid foods that cause gas, such as broccoli and beans. • Avoid foods with lactose, such as yogurt and milk. • Avoid spicy, fried, and greasy foods. Contact your care team if: • The number of bowel movements you have in a day increases by 4 or more. • You feel dizzy or lightheaded. Your care team may recommend an over-the-counter medication or prescribe something to help manage your symptoms.

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Possible Side Effect	Management
Fever	You may feel hot, cold and shivery, achy or dizzy. This usually starts during the first month of therapy but could happen at any time. • Call your doctor immediately if you have a fever with a temperature of 100.4° F or higher. Ask your doctor if you can take medicine to help with the fever.
Hair loss (alopecia)	• Hair will likely grow back after treatment is completed, although the color and/or texture may be different. • It may take 3 to 6 months after therapy is completed to resume normal hair growth. • Some people choose to wear scarves, caps, or wigs. A short haircut prior to treatment may help with stress of hair loss. • Partial or complete hair loss is likely, usually 1-2 weeks after start of therapy. This hair loss can be all body hair. • Be sure to keep your head covered to protect it from the sun during the summer and cold during the winter.
Changes in body fluid color	Doxorubicin may cause tears, sweat, saliva, and urine to have a reddish tint for a few days after treatment.

Rare but serious side effects

Tell your care provider if you experience any symptoms of these problems:

☐ Doxorubicin can make your heart work harder to pump blood to the rest of your body. You should receive a test to measure your heart function before treatment begins – this is usually called an echocardiogram (ECHO) or multigated acquisition (MUGA) scan. Tell your healthcare provider right away if you experience new or worsening shortness of breath, chest pain, irregular heartbeat, or swelling of your ankles or legs.

☐ Doxorubicin and vinblastine are vesicants. If these medicines leak outside the IV, it can cause severe damage to your skin. Notify your nurse right away if you feel pain, aching, burning, itching, swelling, or redness at the site or your IV.

☐ Brentuximab vedotin can rarely cause an infusion reaction. During your treatment, let the nurse know right away if any of these symptoms happen: chills or shaking, dizziness, fever, itchiness or rash, flushing, difficulty breathing, wheezing, sudden back pain, or feeling faint.

☐ AAVD may be harmful to your liver. Your care team will review blood tests to monitor your liver function. If you get this side effect, your doctor may change your dose or stop treatment for some time.

☐ AAVD may rarely cause a secondary cancer called Myelodysplastic Syndrome (MDS) or Acute Myeloid Leukemia (AML). Symptoms of low blood cell counts are common during treatment but can be a sign of MDS or AML. Your care team will check your blood cell counts even after treatment is done to monitor for this side effect.

If you experience ANY new, worsening, or uncontrolled side effects, call your care team immediately.

(INSTITUTIONAL CONTACT INFO)

Handling body fluids and waste

Some of the drugs you receive may be present in urine, stool, sweat, or vomit for many days after treatment. Many cancer drugs are toxic, your bodily waste may also be toxic and can be dangerous to come into contact with. Once you have started AAVD, follow the instructions below for at least seven days after your treatment. This is to keep you, your loved ones, and the environment as safe as possible.

- ☐ Pregnant women should avoid touching anything that may be soiled with body fluids from the patient.
- ☐ Toilet and septic systems
  - You may use the same toilet, septic tank, and/or sewer that you usually use. If you have a low-flow toilet, close the lid and flush twice to ensure that all waste has been discarded.
- ☐ If the toilet or toilet seat becomes soiled with urine, stool, or vomit, clean the surface after every use before other people use the toliet.
- ☐ Wash hands with soap and water after using the toilet for at least 20 seconds.
- ☐ If you need a bedpan, be sure your caregiver knows to wear gloves to assist with cleanup and to wash the bedpan with soap and water every day.
- ☐ If you do not have good control of bladder or bowels, use a disposable pad with a plastic back, a diaper, or a sheet to absorb body waste.
- ☐ Wash any skin that has been exposed to body waste with soap and water.
- ☐ Linens or clothing that are soiled with body fluids or body waste should be washed separately from other linens and clothing. If you do not have a washer, place the soiled linens in a plastic bag until they can be washed.
- ☐ Wash hands with soap and water after touching linens or clothing that may be soiled with body fluids.

Intimacy, sexual activity, contraception, and fertility

This treatment may cause changes that can affect intimacy and sexuality, including desire and body image. Maintaining physical closeness and/or intimacy with loved ones can be continued during treatment. Holding hands, hugging, and kissing can be done safely. It is recommended that you talk to your care team about any restrictions or questions you may have.

Some treatments can influence the ability to have children, also known as fertility. If you're interested in preserving fertility, talk to your care team before treatment. Ask your healthcare provider to determine when it is safe to become pregnant after your treatment. Patients of reproductive ability should not become pregnant or get their partners pregnant while receiving AAVD. Some of the drugs you receive may be present in semen and vaginal secretion for many days after treatment. You should use barrier devices, such as condoms, during sexual activity to limit exposure to body fluids.

- ☐ Talk to your care team about birth control. Not all options may be right for your treatment or cancer. Effective contraception could include one or more of the following: barrier methods (e.g. condoms), hormone methods (e.g. birth control pills), or surgery.
- ☐ Tell your care team if you become pregnant or plan to breastfeed.

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Additional resources

Prescribing information:

Brentuximab vedotin: https://seagendocs.com/Adcetris_Full_Ltr_Master.pdf
Doxorubicin: https://www.accessdata.fda.gov/drugsatfda_docs/label/2012/062921s022lbl.pdf
Vinblastine: https://pdf.hres.ca/dpd_pm/00019154.PDF
Dacarbazine: https://www.pfizer.ca/sites/default/files/201902/Dacarbazine_PM_E_221511_25Jan2019.pdf

Additional instructions

Updated – April 3, 2022

Important notice: *The Association of Community Cancer Centers (ACCC), Hematology/Oncology Pharmacy Association (HOPA), National Community Oncology Dispensing Association, Inc. (NCODA), and Oncology Nursing Society (ONS) have collaborated in gathering information for and developing this patient education guide. This guide represents a brief summary of the therapy derived from information provided by the drug manufacturer and other resources. This guide does not cover all existing information related to the possible uses, directions, doses, precautions, warnings, interactions, adverse effects, or risks associated with this therapy and should not substitute for the advice of a qualified healthcare professional. Provision of this guide is for informational purposes only and does not constitute or imply endorsement, recommendation, or favoring of this therapy by ACCC, HOPA, NCODA, or ONS, who assume no liability for and cannot ensure the accuracy of the information presented. The collaborators are not making any representations with respect to the medications whatsoever, and any and all decisions, with respect to such medications, are at the sole risk of the individual receiving therapy. All decisions related to receiving this therapy should be made with the guidance and under the direction of a qualified healthcare professional.*

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