ABVD

Indications: Hodgkin's lymphoma

Prior to a course of treatment

- Assess cardiac function by history, exam, ECG and CXR. If there is evidence of cardiac disease or risk factors, prior anthracycline therapy or patient >70 years perform a MUGA scan. If LVEF <50% *discuss with consultant*
- Check U&Es, creatinine, LFTs – *see dose modification*
- Check virology: Hb_sAg, anti-HBc, anti-hepatitis C and HIV antibody. *Inform consultant if positive*
- Check FBC. Patient must have adequate bone marrow reserve i.e neuts >1.0, platelets >100 unless cytopaenia is due to disease e.g marrow infiltration, splenomegaly
- Blood and platelet transfusions must be irradiated indefinitely – *inform Transfusion Lab*
- If appropriate discuss the possibility of pregnancy with female patients and need for contraception with both male and female patients. Note ABVD has not been associated with infertility but offer semen cryopreservation to male patients and referral to discuss measures to preserve fertility to female patients

Prior to each cycle

- Medical review of fitness for treatment – exclude infection, major changes in organ function
- Check FBC, U&Es, creatinine, LFTs – platelets must be > 75 – see dose modifications
- Note importance of maintaining dose intensity hence give day 1,15 irrespective of the neut count
- If there has been neutropenic sepsis consider GCSF or dose reduction – *discuss with consultant*

Doxorubicin	25mg/m^2	IV bolus	days 1 and 15
Bleomycin	10000U/m^2	IV bolus	days 1 and 15
Vinblastine	6mg/m^2 in 50ml N saline	IV over 5 mins	days 1 and 15
Dacarbazine	375mg/m^2 in 0.5L N saline	IV over 2hrs	days 1 and 15

Repeat cycle every 28 days for up to 6 cycles

Premedication	Chlorpheniramine 10mg IV
Prophylaxis for acute emesis	5HT antagonist and dexamethasone
Prophylaxis for delayed emesis	5HT antagonist and dexamethasone for 3-4 days
Other medications	Allopurinol 300mg od for cycle 1 Cotrimoxazole 480mg od throughout treatment plus 2 weeks Acyclovir 400mg bd throughout treatment plus 2 weeks

Dose modifications for thrombocytopaenia (unless due to lymphoma)

• Platelets < 75 on day 1	Delay cycle 1-2 weeks – if no recovery consider proceeding at 50-75% dose doxorubicin and vinblastine, or give platelet transfusion support – discuss with consultant

Dose modification for liver dysfunction (unless due to lymphoma)

• Bilirubin <1.5 x ULN	100% dose doxorubicin and vinblastine
• Bilirubin 1.5 – 3.0 X ULN	50% dose doxorubicin and vinblastine
• Bilirubin > 3 x ULN	25% dose doxorubicin and vinblastine

For severe liver dysfunction consider replacing doxorubicin with cyclophosphamide 375mg/m^2

Dacarbazine is activated and metabolized in the liver and can be hepatotoxic – *consider dose reduction in severe liver dysfunction*

Dose modification for renal dysfunction

• Doxorubicin and vinblastine	No dose reduction required
• Bleomycin	Cr Cl >50ml/min - 100% dose Cr Cl 10-50ml/min – 75% dose Cr Cl <10ml/min – 50%
• Dacarbazine	Cr Cl <60ml/min – consider 75% dose

Dose modification for cardiotoxicity

- If symptoms or signs of cardiac failure develop the LVEF must be rechecked by MUGA scan or echocardiogram - *inform the consultant.*
- If impaired cardiac function is demonstrated consider replacing doxorubicin with etoposide 25mg/m^2 IV in 0.5L N saline over 1 hr on days 1 and 15 and 50mg/m^2 PO (50mg and 100mg tablets) on days 2, 3, 16 and 17

Dose modification for vinblastine neurotoxicity

- If grade 2 motor (mild objective weakness interfering with function but no activities of daily living) or grade 3 sensory neuropathy (sensory loss or paraesthesiae interfering with activities of daily living) appears, reduce dose to 3mg/m^2
- If toxicity increases despite dose reduction, stop vinblastine

For bleomycin pulmonary toxicity

- Consider this possibility if there is persistent unexplained dyspnea or non-productive cough – stop bleomycin, perform CXR and discuss with consultant. Consider PFTs and transfer factor. If there is clinical and radiological evidence of pneumonitis or transfer factor reduced to <50%, bleomycin should be permanently stopped.

For bleomycin skin toxicity

- Skin toxicity (particularly affecting the hands and feet) is common. Only stop bleomycin if severe.

ABVD toxicities	
General	nausea, vomiting, neutropenic sepsis, thrombocytopaenia, mucositis, amenorrhoea and infertility (usually reversible but offer semen cryopreservation), late second malignancies
Bleomycin	fever, rigors, chills, cough, anaphylaxis, breathlessness/pneumonitis, late pulmonary fibrosis, photosensitivity, mucocutaneous and cutaneous toxicity, hyperpigmentation
Vinblastine	Peripheral sensory neuropathy, autonomic neuropathy, constipation, ileus, seizures, jaw pain
Doxorubicin	Cardiac arrythmias, cardiomyopathy
Dacarbazine	Flu-like symptoms , pain on infusion (consider dilution or giving via PICC line), liver dysfunction

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