Kaposi Sarcoma Protocol

Pre-Treatment Documentation

Date of HIV Diagnosis:  
Date of KS Diagnosis:

Mode of Diagnosis (Biopsy vs Clinical):

HAART Regimen:

Other Medications:

Pre-Treatment Evaluations

FBC, Chemistries, BUN/Cr, CXR, Abdominal ultrasound
Where available: Echocardiogram, pulmonary function tests

[Diagram of a human figure showing front and back views]
Supportive Care

All patients should receive PCP prophylaxis during and for 6 months after completion of chemotherapy.

Patients should receive daily stool-softener (e.g. senna, bisacodyl, colace) throughout the course of chemotherapy to avoid severe constipation & ileus secondary to vincristine.

HAART Management

The exact incidence of KS IRIS is not known, however, it has been observed in children and adults treated at different Baylor College of Medicine Centers in sub-Saharan Africa, and has at times been fatal. Therefore, at least one cycle of chemotherapy is recommended prior to initiating HAART in patients identified with KS not already on HAART.

CD4 count & percentage is expected to be decreased while patients are receiving chemotherapy. When CD4 is required to be checked, this must be considered if the value remains low despite good adherence to HAART.

Viral Load should not be affected by chemotherapy and VL monitoring is recommended where available if adherence concerns exist and a good CD4 response to HAART is not observed.

There are important overlapping side effects that must be considered:

AZT-based HAART can result in severe anemia and/or neutropenia. Chemotherapy may also cause significant marrow suppression. Patients on AZT-based therapy must be monitored closely for anemia & neutropenia following chemotherapy. Patients who have significant difficulty accessing care (e.g. distant rural setting) may benefit from switching to d4T-based therapy for the duration of chemotherapy.

d4T-based HAART & vincristine can both cause peripheral neuropathy. While d4T appears to be well tolerated in children, the addition of vincristine may result in significant neuropathy. In cases where neuropathy is clearly secondary to vincristine (e.g. patient not yet on HAART), dose reduction of vincristine or withholding doses may be considered (see Chemotherapy section below).
### Treatment Protocol

#### Day 1:

1. Vincristine 1.5 mg/m² (Max dose 2 mg) IV Push
2. Bleomycin 10 Units/m² (Max dose 15 Units) IV over 10 minutes
3. Doxorubicin 25 mg/m² IV over 5-10 minutes

These should be repeated every 21 days (3 weekly) for 6 cycles

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<th>Cycle &amp; Date</th>
<th>Drug &amp; Dose</th>
<th>Significant Events &amp; Interventions</th>
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### Chemotherapy

1. **Doxorubicin (Adriamycin)**
   
   Doxorubicin is available as a red powder than must be reconstituted with Normal Saline (NS) at 2 mg/ml or it is available in liquid form. Doxorubicin is a vesicant, hence it is imperative to ensure good blood return in a freshly placed IV. A good practice is to flush the IV with 5 ml saline to ensure proper placement prior to administering chemotherapy. The total dose can be administered via slow IV push over 5-10 minutes. It can also be infused over 15-20 minutes. Pre- or post-hydration is not needed. The medication is followed by a 2-5 ml NS flush. **The total cumulative dose should not exceed 300 mg/m² without discussion with oncologist.**

   **Side Effects of Note:** vesicant, myelosuppression, cardiomyopathy (late)

2. **Bleomycin**
   
   Bleomycin is available as a white powder reconstituted with NS at a concentration of 3 units/ml. It is infused by slow IV push over 10 minutes followed by a 2-5 ml NS flush. **The total cumulative dose should not exceed 250 units/m² without discussion with oncologist.**

   **Side Effects of Note:** myelosuppression, hyperpigmentation, fever, pulmonary fibrosis

3. **Vincristine**
   
   Vincristine is available as a white powder reconstituted with NS at 0.1 mg/ml to 1 mg/ml or it is available in liquid form. Vincristine is a vesicant, hence IV placement must be ensured prior to injection of vincristine. It is given as an IV push and can be injected quickly into the IV, followed by 2-3 ml NS flush.

   **Side Effects of Note:** vesicant, myelosuppression, neuropathy