

Antineoplastic Therapy Homework

Please review and complete the two antineoplastic therapy regimes below. The answers will be reviewed and discussed during day four of class.

Regime 1: Hyper-CVAD

- Cyclophosphamide 300mg/m² over 3 hours every 12 hours for 6 doses on day 1 (8/1), day 2 (8/2), & day 3 (8/3). Start first dose at 8:00 a.m.
- Doxorubicin 50mg/m² over 48 hours on day 4 (8/4) at 8:00 a.m.
- Vincristine 2mg over 15 minutes on day 4 (8/4) at 8:00 a.m. Repeat on day 11 (8/11) at 8:00 a.m.
- Dexamethasone 40mg/day IV on day 1 (8/1), day 2 (8/2), day 3 (8/3) and day 4 (8/4) and day 11 (8/11), day 12 (8/12), day 13 (8/13), and day 14 (8/14). Administer 30 minutes prior to chemotherapy.
- Filgrastim 5mcg/kg subq daily until ANC > 500. Start day 8 (8/8) at 8:00 a.m.

Regime 2: FOLFOX

- Oxaliplatin 85mg/m² over 2 hours (120 minutes) on day 1 (9/5) at 10:00 a.m.
- Leucovorin 400mg/m² over 2 hours (120 minutes) on day 1 (9/5) at 10:00 a.m.
- Fluorouracil (5-FU) 400mg/m² via IV push over 3-5 minutes on day 1 (9/5) at 12:00 p.m.
- Fluorouracil (5-FU) 2400mg/m² continuous infusion over 46 hours on day 1 (9/5) at 12:15 p.m.
- Fluorouracil (5-FU) pump disconnect on day 3 (9/7) at 10:15 a.m.

1. Calculate the doses for all medications using actual body weight using the two patients below.

- Daniel Smith: Height: 183 cm Weight: 105 kg
- Calculate Dan's BSA

$$BSA (m^2) = \sqrt{\frac{\text{height (cm)} \times \text{weight (Kg)}}{3600}}$$

- Sarah Story: Height: 155 cm Weight: 60 kg
- Calculate Sarah's BSA

$$BSA (m^2) = \sqrt{\frac{\text{height (cm)} \times \text{weight (Kg)}}{3600}}$$

	Dan dose	Sarah dose
Regime 1:		
Cyclophosphamide 300mg/m ²		
Doxorubicin 50mg/m ²		
Vincristine 2mg		
Filgrastim 5mcg/Kg		
Regime 2:		
Oxaliplatin 85mg/m ²		
Leucovorin 400mg/m ²		
Fluorouracil (5-FU) 400mg/m ²		
Fluorouracil (5-FU) 2400mg/m ²		

2. For each antineoplastic agent in the regimen list:

- 2 pretreatment physical assessments
- 2 labs, diagnostic studies
- 1 indication dose reduce or hold the dose
- 2 components of patient/ family education for each agent

	2 Physical Assessments	Labs &/or Diagnostic Studies	Variables to Reduce or Hold Dose	2 Patient/ Family Education Aspects
Course 1				
Cyclophosphamide				
Doxorubicin				
Vincristine				

	Physical Assessments	Labs &/or Diagnostic Studies	Variables to Reduce or Hold Dose	Patient/ Family Education
Course 2				
Oxaliplatin				
Leucovorin				
Fluorouracil (5-FU)				

3. List 2 co-morbid conditions may impact the patient's ability to receive full doses of each of these agents or at least require closer monitoring?

1.

2.

4. On the calendars below, document the schedule, including start times, for all agents.

Regime 1: Hyper-CVAD

August						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27

Regime 2 : FOLFOX

September						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	