# Duke Medicine

## Division of Cellular Therapy

### DOCUMENT NUMBER: ABMT-COLL-002 FRM4

**DOCUMENT TITLE:**
Photopheresis Test FRM4

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- **Document Type:** ABMT

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**Control Information**

- **Author:** MC363
- **Owner:** MC363

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Photopheresis Test

Directions: Circle the correct answer to each question on answer sheet. A score of 100% must be achieved. You may use any Therakos Cellex booklet to assist with this test. If score is less than 100% is resulted, a re-education session will be provided by the Apheresis Coordinator/designee in accordance with the Nurse Manager.

1. The correct formula for the liquid Methoxsalen (20 micrograms/mL) dose is:
   a. Treatment volume x 0.017
   b. Whole blood processed x 0.017
   c. Treatment volume x 0.17
   d. Return bag volume x 0.017

2. Patients should be instructed to eat a _______ diet the day before treatment to reduce risk of lipids interfering with Buffy Coat collection.
   a. Low fat diet
   b. High fat diet
   c. Vegetarian diet
   d. Junk food diet

3. Peak ECV occurs during:
   a. Collect/Drawing
   b. Collect/Buffy Coat
   c. Photo-activate/Returning
   d. Reinfuse

4. A Red Blood Cell Pump alarm may be caused by abnormal plasma conditions. This may be corrected by:
   a. Reducing the Collect Line flow rate
   b. Increasing the A/C ratio
   c. Adjusting the Bowl Optic Sensor Settings
   d. All the above

5. Why should you handle the Photo-activation Module only by its frosted edges?
   a. The Module is fragile and the frosted edges are reinforced
   b. Hold the frosted edges is the easiest way to insert the Module
   c. Oils from your hands may block UVA light
   d. All the above
6. What is the default setting for the total blood processed during a procedure?
   - a. 500
   - b. 1000
   - c. 1500
   - d. 2000

7. The default number of cycles for either SINGLE or DOUBLE needle mode is _____.
   - a. 1
   - b. 10
   - c. 3
   - d. 100

8. If a patient’s blood pressure rises during reinfusion, you may want to consider:
   - a. Lowering the return line flow rate
   - b. Raising the return line flow rate
   - c. Administering an antihypertensive
   - d. Pausing reinfusion for 60 minutes

9. TRUE OR FALSE? During PRIME and PRIME ACCESS, the collect and return lines are already configured for SINGLE needle mode.
   - TRUE
   - FALSE

10. TRUE OR FALSE? Patient access should be established prior to selecting SINGLE or DOUBLE needle mode.
    - TRUE
    - FALSE

11. How often should the 9-volt battery be replaced?
    - a. Whenever the 9-volt battery Low alarm appears.
    - b. Annually
    - c. After every 10 treatments
    - d. A and B

12. When should the Therakos Cellex Light Assembly be replaced?
    - a. When the remaining lamp life is 0 hours
    - b. When the remaining lamp life is 10 hours
    - c. When the lamp door alarm appears
    - d. When the 9-volt battery is replaced
13. Manual Return due to a treatment interruption requires:
   a. An external filter
   b. Physician approval
   c. Following instructions in Section 5 of the Operator’s Manual
   d. All the above.

14. The advantage of continuous flow technology is:
   a. Longer treatment times
   b. Enhanced patient comfort and convenience
   c. Decrease operational efficiency and patient throughput
   d. Less efficient scheduling and better resource utilization

15. After Photo-activation begins, what is the only control button visible on the main screen?
   a. Pause
   b. Stop
   c. End buffy coat
   d. Abort

16. TRUE OR FALSE? Facing the instrument, the Treatment Bag is hung on the left Load Cell hook below the pump deck.
    TRUE     FALSE

17. When installing the Drive Tube, position the Tube so that:
   a. The red stripe faces the front of the assembly
   b. The notch is above the Drive Tube Latch
   c. The black stripe faces the rear of the assembly
   d. The reinforced area of the Tube extends out the Centrifuge Door

18. Which of the following are reasons to lower the Bowl Optic Setting?
   a. Abnormal clarity and color
   b. Anemia
   c. Normal red blood cell morphology
   d. Because you want too

19. TRUE OR FALSE? The American Association of Blood Banks recommends maintaining a Fluid Balance at no more than 20% of the patient’s Total Blood Volume.
    TRUE     FALSE
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20. TRUE OR FALSE? When treatment is complete, the total residual blood loss is approximately 22 mL (estimated volume in the Collect Line).
   TRUE      FALSE

21. Which of the following is a possible consequence of stopping and re-purging the centrifuge bowl during the procedure?
   a. The centrifuge bowl never has to be re-purged
   b. The Buffy Coat is partially lost
   c. The EVC is decreased
   d. The treatment would automatically be aborted

22. In Double Needle Mode, the patient’s Collect flow rate begins to slow. If no other adjustments are made to the instrument, what is likely to happen?
   a. The patient’s FLUID BALANCE will become more negative.
   b. The patient’s FLUID BALANCE will become more positive.
   c. The patient’s ECV will increase.
   d. The Return Line flow rate will decrease to compensate.

23. What is the proper response to maintain FLUID BALANCE in Double Needle Mode if the Return Line flow rate slows?
   a. Increase the Collect Line flow rate.
   b. Decrease the Collect Line flow rate.
   c. Increase the A/C ratio.
   d. Lower the Bowl Optic Sensor Setting by 10.

24. Which of the following alarms will require a full or partial manual return with physician approval?
   a. Blood Pump Error that cannot be resolved.
   b. Blood Leak (Centrifuge) due to Centrifuge Bowl or Drive Tube leak.
   c. System Pressure due to permanent kink in bowl outlet line.
   d. All of the above.

25. One function of the RELEASE KIT button is to:
   a. Retract all FLUID ROUTING VALVES so that the PUMP TUBING ORGANIZER may be removed.
   b. Save all the treatment data to the Smart Card and power down the system.
   c. Stop the Centrifuge Bowl from spinning.
   d. All the above.
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Calculation Questions

1. Using the formula TBV = weight (kg) x Body Build Factor, the TBV of a 60 kg normal adult female is approximately:
   a. 3600 mL
   b. 4200 mL
   c. 4900 mL
   d. 5250 mL

2. Please calculate the following: (TBV, TV 10-15%, Double Needle/Single Needle ECV)
   a. 55 y/o male, 248 lbs., Muscular build, HCT 42%,
   b. 66 y/o female, 140 lbs., Normal build, HCT 28%
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Photopheresis Test

**Answer Sheet**

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<thead>
<tr>
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<tr>
<td>Directions: Circle the correct answer to each question. A score of 100% must be achieved. You may use any Therakos Cellex booklet to assist with this test. If score is less than 100% is resulted, a re-education session will be provided by the Apheresis Coordinator/designee in accordance with the Nurse Manager.</td>
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1. a b c d
2. a b c d
3. a b c d
4. a b c d
5. a b c d
6. a b c d
7. a b c d
8. a b c d
9. TRUE FALSE
10. TRUE FALSE
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### Calculation Questions

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<td>a</td>
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#### 1. Calculations

**a.**

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**b.**

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**Author**

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**Management**

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**Medical Director**

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**Quality**

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**Document Release**

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