

**Five Things Physicians
and Patients Should Question**

--QUIZ ANSWER KEY--

Don't proceed with elective surgery in patients with properly diagnosed and correctable anemia until the anemia has been appropriately treated.

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1. What percentage of patients are anemic prior to elective surgery? A. 20%
B. **33%**
C. 50%
D. 65%
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2. Treatment of anemia improves patient readiness for surgery and aids in _____. A. Management of comorbid conditions
B. Decreasing length of stay and readmission rates
C. Reducing transfusion risks.
D. **All of the Above**
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3. _____ aids in the absorption of oral iron. A. Magnesium
B. **Vitamin C**
C. Riboflavin
D. Vitamin D
-
4. What foods contain the most easily absorbable form of iron? A. Green leafy vegetables
B. Whole grains
C. Beans
D. **Meat and chicken**

Don't perform laboratory blood testing unless clinically indicated or necessary for diagnosis or management in order to avoid iatrogenic anemia.

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5. What ___% of patients become anemic by day 3 in the ICU? A. **90%**
B. 43%
C. 8%
D. 25%
-
6. 90% of patients in the ICU for 3 days are anemic, why? A. Poor diet
B. Bleeding
C. **Blood tests**
D. Gunshot wounds
-
7. Anemia is associated with significant morbidity or mortality. A. **True**
B. False
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8. Studies have shown that excessive phlebotomy in critically ill patients is associated with doubling the odds of being transfused. A. **True**
B. False

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9. What % of “rainbow draws” are ultimately used for add-on tests? **A. 10%**
B. 25%
C. 50%
D. 65%
-
10. Which strategies can be used to decrease excessive phlebotomy and unnecessary lab testing? **A. Audits and rounding**
B. Cost transparency
C. Reinfusion devices
D. All of the above

Don't transfuse plasma in the absence of active bleeding or significant laboratory evidence of coagulopathy.

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11. In which scenario is Fresh Frozen Plasma (FFP) indicated? **A. Volume expansion**
B. **Massive Transfusion Protocol**
C. Warfarin reversal in a non-bleeding patient with a supra-therapeutic INR.
D. When specific factor concentrates are available and indicated (e.g., Novoseven, rFVIIa, rVIII, rIX, PCC, etc.)
E. Heparin reversal
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12. Fresh Frozen Plasma is **NOT** indicated for warfarin reversal in a non-bleeding patient without clinical urgency, when adequate time for Vitamin K and/or Prothrombin Complex Concentrates (PCC) to improve coagulopathy is available. **A. True**
B. False
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13. FFP is indicated in a stable, non-bleeding patient with a mildly elevated INR (1.5-2 seconds) prior to a pre-planned, elective invasive procedure. **A. True**
B. False
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14. Which laboratory tests would **NOT** provide meaningful data to support a decision to transfuse Fresh Frozen Plasma? **A. Prothrombin Time/INR**
B. Complete Blood Count (CBC)
C. Whole blood viscoelastic testing
D. Activated Partial Thromboplastin Time (aPTT)

Avoid transfusion when antifibrinolytic drugs are available to minimize surgical bleeding.

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15. Early administration of _____ in obstetric hemorrhage significantly reduces mortality and bleeding. **A. Tranexamic acid**
B. Spironolactone
C. Chocolate
D. Promethazine
-
16. What therapy has been shown to reduce blood loss in orthopedic surgeries? **A. Blood Irradiation Therapy**
B. Massage Therapy
C. Antifibrinolytic pharmacologic therapy
D. None of the Above

17. How do you keep the blood in the patient?
 i) pump in more blood by allogeneic transfusion
 ii) plug the holes with systemic hemostatic agents-antifibrinolytics
 iii) clamp the leaking tap with direct pressure and tourniquets
 iv) recycle with cell salvage
 v) rainbow draws and replace with new blood when supply drops.
- A. i,ii,iii
 B. **ii,iii,iv**
 C. iii, iv, v
 D. all the above

18. Antifibrinolytic pharmacologic therapy has been shown to reduce blood loss and transfusion requirements in orthopedic and cardiovascular surgeries.
- A. **True**
 B. False

19. Early administration of tranexamic acid, specifically within ____ hours, in trauma and obstetric hemorrhage significantly reduces mortality and bleeding.
- A. One
 B. Two
 C. **Three**
 D. Five

20. Antifibrinolytics inhibit the breakdown and lysis of blood clots or thrombus.
- A. **True**
 B. False

21. The use of antifibrinolytics is associated with risks of thromboembolism in spine surgery.
- A. True
 B. **False**

22. Antifibrinolytic therapy after subarachnoid hemorrhage is reported to reduce rebleeding by ____.
1. 15-20%
 2. 25-30%
 3. **35-40%**
 4. 45-50%

Avoid transfusion, outside of emergencies, when alternative strategies are available as part of informed consent; make discussion of alternatives part of the informed consent process.

23. Informed choice/consent regarding transfusion is standardized and consistently delivered.
- A. True
 B. **False**



Download [Five Things Physicians and Patients Should Question](#) and place in waiting or exam rooms, or give to patients as handouts to educate them about overuse.

Also available in [Español](#).