MJ is a 38-year-old male who has no significant past medical history was admitted to a local hospital through ER following a motor vehicle accident. After initial resuscitation in the ER, the patient was taken to operating room for ruptured liver and spleen repair. MJ is now in ICU and has the following findings:

Scr = 3.4 mg/dl (0.5-1.2)  
BUN = 67 mg/dl (8-20)  
BP = 105/67 mmHg  
Urine output = 120 ml over the past 8 hr  
Na = 134 mEq/L (135-147)  
K = 5.7 mEq/L (3.5-5)  
Hgb = 9.5 (14-16 g/dl)  
Urine analysis: no significant urine sediment  
Fractional excretion of sodium (FE\textsubscript{Na}) = 0.5%

1. Which of the following is true about MJ’s current medical condition?  
   a. Acute pulmonary contusion  
   b. Acute renal failure  
   c. Hepatorenal syndrome  
   d. None of the above

2. Which of his findings are consistent with his main current problem?  
   a. Scr, BUN, \text{FE}_{\text{Na}}  
   b. BP, Hgb  
   c. BP, Na, K  
   d. All of the above

3. What is possible cause of this problem:  
   a. Fluid overload with ascites  
   b. Rhabdomyolysis  
   c. Post-renal obstruction  
   d. Pre-renal injury

4. How should MJ be treated?  
   a. Start lisinopril to preserve heart and kidney functions  
   b. D/C drugs causing hyperkalemia  
   c. Optimize IV fluids and considered furosemide therapy  
   d. Start IV hydrochlorothiazide with moderate to high dose

5. What is the goal of therapy:  
   a. Improve urine output (1-2 ml/kg/hr)  
   b. Reduce signs of pulmonary dysfunction  
   c. Reduce fluid overload  
   d. Improve liver function tests
• MK is a 63-year-old, 85 kg (overweight) female, a known case of hypertension and DM type 2 for the past 15 years. She is now presented to the outpatient clinic for her scheduled appointment.

**Drug history:** Gliclazide 160 mg QD  
Atenolol 100 mg QD

**Laboratory tests:**
- WBC $5.5 \times 10^3$ (3.2-10)
- RBC $4 \times 10^6$ (3.5-5)
- Hgb 11 (12-15)
- Scr = 2.7 mg/dl (0.5-1.2)
- BUN = 36 mg/dl (8-20)
- Na 146 (135-147)
- K 5.3 (3.5-5)
- BP = 156/95 mmHg
- Fasting blood glucose = 187 mg/dl, 2hr post-prandial glucose = 310 mg/dl
- Urine strip analysis showed +2 albumin

6. Risk factors for her renal dysfunction include all except:
   a. Uncontrolled HTN
   b. Uncontrolled DM
   c. Albuminuria
   d. Anemia

7. How should this patient be managed:
   a. Start lisinopril 5 mg QD
   b. Consider adding metformin 500 mg BID
   c. Increase atenolol dose to 150 mg QD
   d. A and B

8. What monitoring parameters is not relevant to her current problem(s):
   a. Urine albumin level
   b. Blood pressure
   c. Fasting and post-prandial Glucose
   d. Sodium level

9. Albuminuria signifies which of the following:
   a. Tubular damage
   b. High protein intake
   c. Glomerular injury
   d. Low protein intake

10. Drugs that have been shown to reduce albuminuria and possibly kidney progression are:
    a. B-blockers
    b. Loop diuretics
    c. Biguanides
    d. ACEIs