

PART 1

1. Ethylene glycol is a useful industrial compound found in many consumer products. Examples include antifreeze, hydraulic brake fluids, some stamp pad inks, ballpoint pens, solvents, paints, plastics, films, and cosmetics. It can also be a pharmaceutical vehicle.
2. Early symptoms include intoxication, vomiting, and abdominal pain. Later, symptoms include decreased LOC, headache, and seizures.
3. The half-life is 3-8 hours in adults. The removal of ethylene glycol is by hemodialysis. This enhances the removal of metabolized and unmetabolized ethylene glycol.
4. The normal level is 50-100 mg/dl
5. This medication is used to block the metabolism of ethylene glycol and their toxic metabolites. The main drawback is its cost.
6. Sodium bicarbonate and the ABG should be monitored during administration.
7. Drinking water to flush out toxins, calling 911 right away, give sodium bicarb
8. Thiamine is a vitamin B complex. Succinylcholine chloride is a skeletal muscle relaxant, levalbuterol is a bronchodilator, lorazepam helps with anxiety, propofol is used for sedation, and etomidate is given for general anesthesia.
9. Bicarbonate helps with the blocking poisoning, intoxication, and ingestion of ethylene glycol.
10. The results show metabolic acidosis, and this is consistent with the expected findings for a ethylene glycol overdose.
11. She was intubated and place on a vent to maintain and airway and her breathing.
12. Assist control means the vent does all the breathing for the patient. RR is set to have that per min (28), giving oxygen at 40 percent, and positive pressure of 5 to keep alveoli open.
13. Her RR is set at 28 because we want to breath off the acidosis.
14. Serum osmolality of 392, oxalate crystals, anion gap of 29, and bicarb of 7 to determine diagnosis.
15. Wood lamp is an ultraviolet light and shows the presence of radiator fluid in urine.
16. These labs indicate normal findings. They are in normal range.

17. The lab tests included liver assessment because ethylene glycol is metabolized in the liver.
18. A quinton catheter is a dialysis catheter and was inserted in the right internal jugular vein for emergency dialysis.
19. Risk for anaphylactic shock, metabolic acidosis, and Confusion

PART 2

1. Acute kidney injury (AKI), also known as acute renal failure (ARF), is a sudden episode of kidney failure or kidney damage that happens within a few hours or a few days. AKI causes a build-up of waste products in your blood and makes it hard for your kidneys to keep the right balance of fluid in your body
2. The acute renal failure type would be intra renal disease.
3. Onset phase: kidney injury occurs, oliguric phase (less than 30 ml per hour), diuretic phases (urine increases but scaring occurs), and recovery phase (greater output of urine)
4. Mrs. Jimenez would appear to be in the onset phase.
5. The nurse should respond by saying dialysis is removing waste from the blood and is going to be done until the ethylene level in her system is within normal limits.
6. The results are getting worse because the number are increasing from normal values. Bun is normal at 6-20 and creatinine is normal at 0.6-1.3
7. The most concerning cardiovascular change would be dysthymias.
8. Risk for decreased cardiac output, deficient knowledge, risk for infection, excess fluid volume, and risk for imbalanced nutrition.
9. A sitter has been included because of her previous attempt to commit suicide.
10. The National suicide prevention hotline and support groups.
11. Mrs. Jimenez's recent MVC related to her admission because she got even more depressed after her car accident, which added to the stress from the divorce. These factors could have played a role in her ingesting antifreeze to attempt suicide.