Medical Record Review

Jane Doe

Summary Notes

Summary of Jane Doe

Executive Summary Part I

Jane Doe presented to University Hospitals MacDonald Women's Center for prenatal care on 12/9/10 after learning that she had a positive pregnancy test. She initially had been seen in the Erin Building office by a PH CNM. After learning of Ms.Doe's previous history with high blood pressure and then observing that Ms.Doe's blood pressure remained elevated even after obtaining a doctor's order for Aldomet 500mg twice a day and then on 12/16/10 the nighttime dose of Aldomet was increased to 1000mg. PH felt it would be in Ms.Doe's best interest on 12/16/10 that she only be seen by a physician for her prenatal care due to "having uncontrolled hypertension" on her first two prenatal visits.

On 12/21/10, Dr. TM assumed care of Ms. Doe. Dr. M continued to care for Ms. Doe until the date of her incident on 6/15/11. During Ms.Doe's prenatal visits her blood pressure was checked regularly. Ms.Doe's blood pressure continued to be elevated throughout her prenatal care, with no further change in blood pressure medication or dosage. Also, during Ms.Doe's prenatal visits, especially after the twentieth week, her urine was checked most every visit for the presence of Albumin (protein) and Glucose (sugar). Ms. Doe never showed any problems with sugar. However, beginning on 4/5/11, Ms. Doe started to an elevated urine protein by dipstick. The urine protein dipstick readings remained elevated for the remainder of Ms.Doe's pregnancy, with the highest reading obtained on 6/15/11. In addition, on 5/31/11, Ms. Doe had a urine total protein of 123mg/L and a urine protein/creatinine ratio of 397mg/g. Both of which are abnormally high. Again, Dr. M did not attempt to treat these abnormal findings.

A third problem that appeared trivial at first, was Ms.Doe's complaints of tightness or swelling. Initially on 4/5/11 Ms. Doe complained of her wrists feeling sore and she described this as being carpal tunnel. However, according to Jane's initial history and physical she did not have carpal tunnel listed. Ms. Doe again complained on 5/4/11 of missing work the previous day due to her "wrists really hurting her". Dr. M's notes consistently reflected the concern of carpal tunnel and the usage of wrist splints to relieve the symptoms of carpal tunnel. However, Dr. M never questioned Jane as to whether or not she could be having the first signs of swelling. Likewise, on 5/24/11 Ms. Doe complained of swelling in her feet and had requested a doctor's excuse for missed work between 5/18/11 and 5/24/11. On 6/7/11 Dr. M had signed Family Medical Leave paperwork for Ms. Doe and on 6/10/11, Dr. M noted that patient "has not worked since 5/31/11 due to swollen feet and pregnancy related uncomfortableness". Once again, there was no treatment ordered to try to alleviate the swelling.

Finally, Rural Metro EMT AW deviated from the ACLS Algorithm by not providing an advanced airway or attempting to start an IV in order to administer certain medications that could have helped bring Jane out of the PEA arrest. In addition, there is no mention of AW attempting to provide oxygen to Jane with a non-rebreather mask at a flow rate of 15 liters per minute.

Sequence of Events On Date of Incident

June 15, 2011

Prenatal Visit	Jane Doe, 40-year-old female presents to her OB visit with complaints of shortness of breath, elevated blood pressure of 192/102, and positive Group B Strep test from 6/7/11.

3:52PM	Rural Metro Ambulance called Rural Metro Ambulance to transport Ms. Doe to UH ER to rule out Preeclampsia.
4:18PM	Rural Metro Ambulance arrives at Dr. M's office and finds Jane sitting on exam table.
4:30PM	Rural Metro Ambulance leaves Dr. M's office for UH ER. Jane's blood pressure remains elevated.
4:36PM	Jane has seizure, then went into full cardiopulmonary arrest after complaining of shortness of breath x 2 and her systolic blood pressure remained in the 220's-240's. Jane's oxygen level kept dropping prior to seizure even when oxygen was applied initially at 6L per nasal cannula. 3-lead EKG showed PEA. AW was the primary EMT at the time and asked for assistance from his partner KS. After performing a couple of rounds of CPR per ACLS Algorithm, AW was able to place an oral pharyngeal airway. However, after calling the Rural Metro dispatch and requesting assistance, AW opted to have KS return to driving the ambulance while he administered CPR. At this point, AW also decided not to try to start an IV or place an advanced airway as per ACLS Algorithm, rather he just wanted KS to drive to the nearest ER.
4:51PM	Rural Metro Ambulance arrives at UH ER.

It is important to treat high blood pressure in pregnancy because of the risk of preeclampsia. It is important to know the signs and symptoms of preeclampsia. It also important to adhere to standards of care set forth by the American Heart Association with regards to preventing a seizure and providing CPR during pregnancy.

There are 2 types of Preeclampsia:

1. Mild preeclampsia is diagnosed when: pregnancy is greater than 20 weeks; blood pressure is greater than 140 systolic and 90 diastolic; 0.3g of protein is collected in a 24-hour urine sample or persistent 1+ protein measurement on urine dipstick; and there are no signs of problems with the mother or the baby.

2. Severe preeclampsia is diagnosed when there are additional problems with either mother or baby: signs of central nervous system problems (severe headache, blurry vision, altered mental status); signs of liver problems (nausea and/or vomiting with abdominal pain); at least twice the normal measurements of certain liver enzymes on blood test; very high blood pressure (greater than 160 systolic or 110 diastolic); thrombocytopenia (low platelet count); greater than 5g of protein in a 24-hour sample; very low urine output (less than 500ml in 24-hour); signs of respiratory problems (pulmonary edema, bluish tint to the skin). (Craig Weber, High Blood Pressure, 2007)

To treat the critically ill pregnant patient:

1. Place the patient in the left lateral position
2. Give 100% oxygen
3. Establish intravenous (IV) access and give a fluid bolus

Cardiac Arrest Associated With Pregnancy: Modifications for Pregnant Women (Primary)

1. No modification for airway
2. No modification for breathing
3. Circulation-place the woman on her left side with her back angled 15-30 degrees back from the left lateral position. Then start chest compressions.

Secondary Modifications for Pregnant Women

1. Insert an advanced airway early in resuscitation to reduce the risk of regurgitation and aspiration
2. Airway edema and swelling may reduce the diameter of the trachea. Be prepared to use a tracheal tube that is slightly smaller than the one you would use for a nonpregnant woman of similar size
3. Monitor for excessive bleeding following insertion of any tube into the oropharynx or nasopharynx
4. Effective preoxygenation is critical because hypoxia (lack of oxygen to the brain) can develop quickly (American Heart Association, 2005).