

OB Case Study: A.P.

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### **Introduction**

A.P. is a 32 year old Caucasian female that gave birth to a male boy via a repeat transverse cesarean section on October 24, 2011. Her estimated due date was established as October 30, 2011, however she was unsure of actual egg transferred date due to her IVF. A.P. has a history of depression and Rheumatoid Arthritis, all of which required medication. A.P. also had a history of alcohol abuse, in which she described to us as a consumption of 4-5 beers a day. A.P.'s baby boy was born at 0730 on October 24, 2011 and his gestational age was 39 weeks and 2 days. The only complication that occurred during the cesarean section was a nuchal cord X2, with a true knot in the cord, however no complications arose from this.

A.P. was chosen as our patient mostly because of her past medical history. First, A.P. had a previous pregnancy in which she gave birth to twin girls. Second, A.P. has a history of depression and anxiety. As a result, she was taking Sertraline (Zoloft) for her symptoms and she continued treatment throughout pregnancy. A third reason for our choice in A.P. as our patient was her current diagnosis of Rheumatoid Arthritis, which was medicated with prednisone, a corticosteroid. Overall, we found this a good opportunity to assess and investigate into whether or not complications would have arisen with pregnancy due to the administering of these medications during pregnancy. A.P. was very cooperative with our investigations and interviewing.

The purpose of our writing this paper is to use the information we gathered from A.P. through interviews, laboratory testing, medications, and nursing diagnosis to assess our patient and her newborn son. Also, we were able to share patient demographics and her obstetric history through this paper, giving the reader a good illustration of how her prenatal and postnatal care

will go. Our goal through writing this paper is to analyze and share our findings to improve care for future patients that may share similar symptoms.

### **History**

A.P. is a 32 year old Caucasian female, who was admitted for a planned cesarean section on Monday October 24, 2011. A.P. has earned her bachelor degree in early childhood education at Akron University. She is currently employed at Tiny Tots. A.P. denies smoking and substance abuse presently. She has admitted to being sober for the past five years. When asked about the quantity that she would ingest, she stated it was “about 4 or 5 beers every night.” A.P. denies any social, cultural, occupational, and/or economic factors that may have complicated her pregnancy and delivery. Her medical history includes bipolar disorder, rheumatoid arthritis, and IVF with egg retrieval.

Bipolar disorder is characterized as having depression mixed with episodes of mania. A.P.’s bipolar disorder puts her at a 25%-50% risk of having postpartum depression and psychosis (Chessick & Dimidjian, 2010). She needs to be monitored for signs and symptoms of depression or mania in the postpartum period, which include being withdrawn or irritable. Rheumatoid arthritis in pregnant women has a tendency to decrease in severity or go into remission, with 50-76% improving by the end of the first trimester (Ostensen & Villiger, 2007). The cause for the improvement is unknown at this time, and within three months postpartum the patient’s RA will relapse (Ostensen & Villiger, 2007). IVF (in vitro fertilization) makes use of assisted reproductive technology (ART) to help women/couples to become pregnant when they are unable to procreate by themselves. First the woman is given medications to help her ovulate and produce eggs, which are then retrieved through the vagina within the medical office (Storck,

2011). The insemination takes place in the laboratory. Once a healthy embryo is produced the woman is brought back into the office to have the embryo transferred to her womb (Storck, 2011).

Significant family history is that her mother had a heart attack at age 48, and her oldest child has Stickler Syndrome. Stickler syndrome is an autosomal dominant disorder that affects collagen in the body (Houchin, 2007). This disorder is characterized by facial, hearing, eyes, and joint abnormalities. The facial abnormality occurs from underdeveloped facial bones of the cheeks, bridge of the nose, and the surrounding bones, giving a flattened facial appearance (Genetic Home Reference, 2008). Eye sight problems, such as glaucoma, nearsightedness, cataracts, and even blindness occur in people with Stickler Syndrome. They may have hearing loss, and joint problems, like scoliosis, flattened vertebrae, loose/flexible joints all eventually leading to pain. The severity of the disorder increases with age, and can range from mild, where it is never diagnosed, to severe.

### **OB/Gynecological History**

A.P. is a Gravida 2, Para 2, Abortion 0, Living 3. Her previous pregnancy was with twins, in which she had a low transverse cesarean section at 33 weeks gestation, due to oligohydramnios. Oligohydramnios is when there is less than the normal amount of amniotic fluid present. When her twins were born, one of them was then diagnosed with Stickler Syndrome. With her first pregnancy she did attend prenatal classes, but did not with her second pregnancy. She has no history of any sexually transmitted diseases. During this pregnancy she complained about restless leg syndrome and was unable to sleep on June 28th. Her physicians office suggested that she increase her fluid intake and to take Benadryl or Tylenol. On September

6th she used over the counter cream for treatment of a yeast infection. The medications that A.P. had taken throughout this pregnancy include prednisone for her rheumatoid arthritis and Zoloft for depression and bipolar disorder.

### **Prenatal Data**

There are several tests that are used in labor and delivery to help determine the health and well being of the mother and fetus. These tests also help to determine the best plan of care for both the mother and fetus. One of the first and most basic tests performed is the blood type and Rh factor. The norms for the blood types include; A, B, AB, and O. The Rh factor possibilities are either negative or positive. This test is important because depending on what the mother's type and Rh factor are compared to the fetuses, there could be devastating consequences particularly for following pregnancies. If the mother is negative and the fetus is positive, the mother could mount an immune response when exposed to the positive blood of the fetus. This immune response is known as RhD alloimmunization (Davidson, et al. 2012). When trauma occurs during a pregnancy with an Rh positive fetus or during birth, the Rh negative mother is exposed to large quantities of fetal blood. This stimulates an immune response where the mother builds up antibodies to the positive Rh factor. During subsequent pregnancies in which she carries an Rh positive fetus, her antibodies will attack the fetal red blood cells and severe anemia or hydrops can result (Davidson, et al. 2012). Our patient's blood type and Rh factor were A+, because she is positive, she will not develop RhD alloimmunization.

Another test that is performed is hemoglobin and hematocrit (H & H). The normal range of hemoglobin is 12- 16 g/dl and the normal range of hematocrit is 38%- 47% (Davidson, et al. 2012). Our patient's hemoglobin was 9.8 g/dl and her hematocrit was 29.3%. These levels are

low but not unexpected. The woman experiences a moderate to severe amount of blood loss during child birth and this decreases the H & H. It is important to know the patient's H & H status because if these levels get to low, death may occur. The first step in correcting this is to give the patient an iron supplement. This will hopefully increase the hemoglobin level which in turn will raise the hematocrit.

Another test that is performed is the rubella immunity test. This test is used to determine if the mother is immune or not immune to rubella. This test is important because if the mother is not immune to rubella she may contract the disease. If the mother contracts the disease during pregnancy, the fetus may develop congenital anomalies or mental retardation (Davidson, et al. 2012). If the mother is not immune, she will be vaccinated post partum to reduce the risk of contracting the disease from the vaccine. If the mother is immune, there is little worry that she will contract the disease and therefore transmit it to the fetus. Our mother was immune so there was no plan to administer the rubella vaccine post partum.

Our patient also had a Chlamydia and Gonorrhea test. This test determines if the mother is positive or negative for both of these infections. If the mother has either one of these infections she can transmit it to the fetus during birth. If this is transmitted to the fetus, they could become septic and death could result. Our mother was negative for both. Despite this negative reading, all babies are given a prophylactic dose of erythromycin in their eyes to prevent infection from these bacteria (Davidson, et al. 2012).

Other tests that are normally performed include VDRL/RPR, urine C & S, sickle cell, PAP test, triple screen test, and 1 hour glucose tolerance. Our patient had no history of these tests that we could find. These tests are important though so we will discuss what they are and the

normal ranges that are expected. The VDRL/ RPR test determines a woman's status for syphilis, which is a sexually transmitted infection. This test and results are similar to the Chlamydia and Gonorrhea test. If the mother is positive she could pass this on to the fetus and they could become septic if proper treatment is not given. The results can either be negative or positive.

The urine C & S is important because it tests the urine to see if there is a urinary tract infection, specific gravity, and acidity of the urine. There should be no proteins, white blood cells, or ketones in the urine and if any of these are present, this signals a possible problem. This test also looks at the specific gravity of the urine. The normal urine specific gravity is 1.001 - 1.035 (Davidson, et al. 2012). The normal pH of urine should be between 4.6- 8 (Davidson, et al. 2012). If any of these are out of normal range, there may be a problem and this warrants further investigation.

The sickle cell test is only performed on those of African- American descent and it determines if the patient has sickle cell disease. The possible results of this test are either positive or negative. If the patient is positive, there are many implications involved and the patient is monitored closely because she is high- risk.

The PAP test determines if there are abnormal cervical cells present that could indicate pre-cancer or cancer. If these cells are present, the woman's health care provider should be notified and the nurse should explain the meanings of the findings and the implications (Davidson, et al. 2012).

The triple screen test is performed between 16 and 20 weeks gestation and looks for fetal abnormalities such as neural tube defects, downs syndrome, and trisomy 18. This is only performed if there is a suspected possibility of any of these occurring such as in a mother with

advanced maternal age. The normal findings would be negative for all of these factors, however if any of these are positive or are indicated to be present, further testing is warranted (Davidson, et al. 2012).

The 1 hour glucose tolerance test is done between 24 and 28 weeks. This test is done to determine if the mother has developed gestational diabetes. The 1 hour glucose is done on every patient and only if it is abnormal is a 3 hour glucose tolerance test performed. The 1 hour test is not diagnostic it is merely a test to determine those at risk for gestational diabetes. The 3 hour test is diagnostic of gestational diabetes. The normal range for the 1 hour glucose tolerance test is 130- 140 mg/dl or lower. If the patient's results are more than this they are referred for the 3 hour glucose tolerance test.

### Diagnostic tests

There are no diagnostic tests to report at this time.

### Prenatal Medications

Medications	Dose, route	Mechanism of action	Indications for use	Possible side effects	Nursing responsibilities
Prednisone	5 mg PO daily	In pharmacologic doses, all agents suppress inflammation and the normal immune response. All agents have numerous intense metabolic effects. Suppress adrenal function at chronic doses of 5 mg/day. Suppression of inflammation and	Used systemically and locally in a wide variety of chronic diseases including: inflammatory, allergic, hematologic, neoplastic, and autoimmune disorders (Deglin, et al. 2011).	CNS: <u>depression</u> , <u>euphoria</u> , headache, increased intracranial pressure (children only), personality changes, psychoses, restlessness. EENT: cataracts, increased intraocular pressure. CV: <u>hypertension</u> . GI: <u>peptic</u>	Assess systems involved before and periodically during therapy.  Assess for signs of adrenal insufficiency before and periodically during therapy.  Monitor serum electrolytes and glucose. May cause



		<p>modification of the normal immune response. Replacement therapy in adrenal insufficiency (Deglin, et al. 2011)</p>		<p><b>ulceration,</b>  <u>anorexia, nausea,</u>          vomiting.          Derm: <u>acne,</u>  <u>decreased wound healing abilities,</u>  <u>ecchymoses,</u>  <u>fragility,</u>  <u>hirsutism,</u>  <u>petechiae.</u>          Endo: <u>adrenal suppression,</u>          hyperglycemia.          F and E: fluid retention (long term high doses), hypokalemia, hypokalemic alkalosis.          Hemat: <b>thromboembolism,</b>          thrombophlebitis.          Metab: weight gain          MS: <u>muscle wasting,</u>  <u>osteoporosis,</u>          avascular necrosis of joints, muscle pain.          Misc: <u>cushingoid appearance</u> (moon face, buffalo hump), increased susceptibility to infection. (Deglin, et al. 2011).</p>	<p>hyperglycemia. May cause hypokalemia. Patients on prolonged therapy should routinely have CBC, serum electrolytes, and serum and urine glucose evaluated. May decrease WBCs. May decrease serum potassium and calcium and increase serum sodium concentrations.</p> <p>Assess symptoms of ulcerative colitis (Deglin, et al. 2012).</p>
<p>Sertraline (Zoloft)</p>	<p>50 mg PO daily</p>	<p>Inhibits neuronal uptake of serotonin in the CNS, thus potentiating the activity of serotonin. Has little effect on norepinephrine or dopamine. Antidepressant action. Decreased incidence of panic attacks.</p>	<p>Major depressive order. Panic disorder. Obsessive-compulsive disorder. Post-traumatic stress disorder. Social anxiety disorder. Premenstrual dysphoric disorder.</p>	<p>CNS: <b>neuroleptic malignant syndrome, suicidal thoughts,</b>  <u>dizziness,</u>  <u>drowsiness,</u>  <u>fatigue, headache,</u>  <u>insomnia,</u>          agitation, anxiety, confusion, emotional lability, impaired concentration, manic reaction,</p>	<p><b>Assess for suicidal tendencies, especially during early therapy. Restrict amount of drug available to patient.</b></p> <p>Monitor appetite and nutritional</p>

		<p>Decreased obsessive and compulsive behavior. Decreased feelings of intense fear, helplessness, or horror. Decreased social anxiety. Decrease in premenstrual dysphoria (Deglin, et al. 2011).</p>	<p>Generalized anxiety disorder (Deglin, et al. 2011).</p>	<p>nervousness, weakness, yawning.                      EENT: pharyngitis, rhinitis, tinnitus, visual abnormalities.                      CV: chest pain, palpitations                      GI: <u>diarrhea, dry mouth, nausea</u>, abdominal pain, altered taste, anorexia, constipation, dyspepsia, flatulence, increased appetite, vomiting                      GU: <u>sexual dysfunction</u>, menstrual disorders, urinary disorders, urinary frequency                      Derm: <u>increased sweating</u>, hot flashes, rash                      F and E: hyponatremia                      MS: back pain, myalgia                      Neuro: <u>tremor</u>, hypertonia, hypoesthesia, parathesia, twitching                      Misc: <b>Serotonin syndrome</b>, fever, thirst (Deglin, et al. 2011).</p>	<p>intake.</p> <p><b>Assess for serotonin syndrome, neuromuscular alterations, and/or GI abnormalities.</b></p> <p>Monitor mood changes (Deglin, et al. 2011).</p>
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**Labor & Deliver Data**

A.P. was admitted for a repeat low transverse cesarean section that was pre-planned for November 25, 2011. Patient is GBS negative, rubella immune, hepatitis negative, and a blood type of A positive. A maternal and fetal monitoring system was used for monitoring the fetal heart rate, to see if there are any contractions, and A.P.'s heart rate. The fetal heart rate ranged from 120-146 beats per minute prior to surgery. Admitting paperwork was completed, and IV was put in place with fluids and 600 mg of clindamycin. A.P. was taken to operating room, where epidural with morphine was put in place for pain management during the procedure. A foley catheter was inserted for monitoring urine output during and after the cesarean section. Once the surgical team checked to make sure A.P. was completely numb they proceeded with the cesarean section. The first incision was at 1007 hours. Rupture of membranes showed meconium staining, which usually indicates fetal distress. A single viable male infant was delivered at 1019 hours, with the umbilical cord around his neck (known as a nuchal cord). Placenta was manually delivered, and A.P.'s incision was closed with internal sutures and external staples. Her estimated blood loss was 600 cc.

### **Postpartum Data**

On October 25, 2011, a student nurse was assigned to the care of AP. After receiving report from the previous nurse in charge of AP, the student nurse introduced himself to the patient and began with a full assessment on her and her newborn baby. AP was awake and alert, sitting up in her bed watching television. AP's temperature was at 36.7 C, pulse was at 80, respirations were 14, and her blood pressure was at 130/80. This morning, AP was ordered several medications at 0800 and 0900. 0800 medications included 325 mg of Ferrous Sulfate by mouth once a day due to her hemoglobin level of 9.8, and she was also ordered a prenatal multivitamin that was to be taken by mouth once a day. The student nurse then met with the

professor to go over and verify the ordered medications. Medications were then properly dispersed to A.P., and the student nurse continued with his assessment.

A.P.'s breasts were soft, not tender, and showed no signs of swelling or engorgement, with no abnormalities with the nipples. The fundus was firm and at midline, and upon inspection, was at a height of 2 below the umbilicus. All bowel sounds were normal and present within all four quadrants, and A.P. let the student nurse also know that she had a bowel movement earlier that morning and was passing flatus. A.P. had intact steristrips, and her incision was well approximated, and without drainage or signs of infection. A.P. had no difficulty voiding either, as she was up on her own, and her urine was clear and odorless. Her vascular assessment revealed good capillary refill, strong pedal pulses in both feet (bilaterally), regular pulse rates, and good color to her skin. A.P. showed none of the Homan's signs, however the student nurse did report slight edema (+1) in her feet and face. The student nurse's respiratory assessment revealed no abnormalities, as lung sounds were clear bilaterally and equal, with a regular breathing pattern.

At 0820 hrs, K.D. rated her pain at 7/10. The student checked the MAR on the computer chart to determine the patient's medication order for pain control. She was prescribed Percocet 5/325mg tablets, one or two per dose, every 4 hours as needed. She also had an order for Motrin 600mg tablet, every 6 hours as needed. Prior to this pain assessment, K.D. had received no Motrin, and her last dose of Percocet was one 5/325mg tablet at 0209 hrs on May 26, 2011. K.D. was given one Motrin 600mg tablet and two Percocet 5/325 tablets by the student nurse at 0855hrs. When the student performed the pain assessment follow-up at 0955 hrs, the patient reported her pain had decreased to 5/10. At 1040 hrs, the patient reported her pain had again decreased to 2-3/10. K.D. performed perineal care on her own, required no assistance getting in

and out of bed, and showered on her own. The patient and her husband took the baby to their discharge class following the 1040 hr pain assessment.

A.P. is 168 cm in height, and her dosing weight was 160lbs. A.P.'s body mass index (BMI) was 28.23 and supported the fact that her physical appearance was normal. Her pre-pregnant weight was 125, meaning that she had a total of about 35lbs of weight gain during her pregnancy. A.P. normally has 3 large meals during the day (breakfast, lunch, and dinner), with one or two small snacks that she tries to make healthy. Snacks may include items such as pretzels, grapes, raisins, etc. As for fluid intake, A.P. sticks to mainly water, and occasionally a bottle of Propel water to add a little flavoring. A.P. is not on any laxatives or stool softeners, and she does not follow any special rules or diets due to ethnicity or religion, nor does she have any concerns about the current diet she partakes in. When she is able to get back home and on a regular eating and workout schedule, A.P. has a goal of losing about 40lbs, reaching around a 120 lbs weight mark. A.P. does the cooking at home, which makes it easier to follow a healthy and nutritious diet, as she strives for this goal. A.P. will also be joining a local gym to go to in her free time. That morning, A.P. drank about 500 ml of water, and ate 100 percent of her breakfast that consisted of eggs, toast, and coffee. For lunch, her husband brought her in steamed vegetables, and she drank about 250 ml of water. It was obvious that A.P. was very goal driven towards the 120 lbs target she has.

A.P. was ambulating, and walking around her room with no problems at all, and was encouraged to do so, due to edema she had accrued in her feet. A.P. had family in her room most of the day as well, so the student nurse was able to visually witness the bonding that was occurring between the family and the baby. There was also a one-on-one connection between A.P. and the baby, as she never stopped smiling and talking to her newborn, even with all her

family in the room visiting. At around 1300, after some of the family went out to give A.P. some rest, the student nurse assessed her pain, and just as before, she rated it at a 0/10. As a result, the prn Tylenol was not needed for A.P. at this time.

At 1500 hrs, the student nurse returned to conduct their final assessment and the following was found:

A.P. had a temperature of 36.8 C, her pulse was 82, respirations were at 15, and her blood pressure was 128/78. Her breasts remained soft and cool, with her nipples still appearing normal without swelling, redness, or blisters. Her fundus was assessed and remained at 2 below the umbilicus, as before, and was still firm and midline. All four quadrants of her abdomen presented bowel sounds, and she continued to pass flatus, however she hadn't had a bowel movement since that morning. A.P.'s output (voiding) correlated perfectly with the amount of water she had been taking in that day, and only a scant amount of rubra, or bright red and bloody, lochia was present in her pad. The student assured AP, that this discharge would last for about another 1-4 days, post op. A.P.'s steri strips were inspected again, and remained intact without redness around the site, showing no signs of infection. The edema in A.P.'s face and feet was also improving, as it was decreasing rapidly through the day. A.P. was negative for Homan's sign bilaterally. Emotionally, as said previously, there are no complications bonding with the newborn. A.P. called him by his name and held him close, talking to him, smiling, and making eye contact. Her neurological assessment was normal, as she was awake, alert, and oriented x3, she was well understood, and her actions and responses were appropriate during given situations. All of A.P.'s pulses were regular, she had a regular apical rhythm, and her capillary refill was good. Lung sounds were normal, clear, and equal bilaterally, as she showed no distress. Lastly,

her skin was warm to touch, pink, and dry with good turgor. A.P. rated her pain at a 0/10 with no discomfort.

At the end of our shift, the student nurses accompanied A.P., her husband, and her newborn to their discharge class. During this brief lecture, parents were taught different topics regarding feeding their newborn that included position, frequency, bottle/nipple types, and amounts to be fed. Also, parents were taught how cord care, bathing techniques, diapering, circumcision care, adequate outputs for their children, and how to use bulb syringes. After the class ended, the student nurse walked A.P. and her family back to their room, where he asked for made sure that the patient was comfortable and content before ending his shift. Also, before leaving, the student nurse took the time to educate the patient on a few topics that he felt would benefit A.P. First, the student nurse encouraged the patient to continue moving and walking to relieve any remaining edema. Walking around would also prevent any clot formation, as well as constipation. Also, due to the iron supplements that A.P. was receiving, the student nurse encouraged plenty of fluids to prevent constipation. The student nurses congratulated A.P. and her husband on the birth of their new son, and A.P. thanked them for their helpful tips and care that they provided her during the shift.

#### **Patient Assessment Values (KD)**

	<b>Assessed at 800</b>	<b>Assessed at 1500</b>	<b>Normal values</b>
<b>Blood Pressure</b>	130/80	128/78	120/80
<b>Heart Rate</b>	80	82	50-90
<b>Respirations</b>	14	15	16-24

<b>Temperature</b>	36.7C	36.8C	36.2-38C
<b>Pain</b>	0 out of 10	0 out of 10	0
<b>Pain after 1 hour</b>			
<b>Pain after 2 hours</b>			

- **Analysis:** All finding Within Normal Limits (WNL), pain levels acceptable to patient  
Normal Values from:

Davidson, P, London, M, Ladewig, M. (2008). *Old's maternal-newborn nursing & women's health across the lifespan* (8th ed.).

### Postpartum Laboratory Data

TESTS	NORMS	PATIENT RESULTS	ANALYSIS
Hemoglobin & Hematocrit	12-16 g/dL 38%-47%	9.8 ↓ 29.3↓	Analysis of decreased H&H concludes that the patient is anemic. Continue with iron supplements as prescribed
WBC	5000-1000 /mm <sup>3</sup>	12.25	↑ WBC's (leukocytosis) typical after delivery
Platelets	150-450 /mm <sup>3</sup>	208	WNL
Lymphocyte	25%-40%	26.6	WNL
Neutrophil	54%-75%	60.2	WNL
Basophil	0%-1%	0.7	WNL
Eosinophil	0%-4%	0.7	WNL
Monocyte	2%-8%	11.8	WNL

**Normal Values from:**

- *Nurse's manual of laboratory and diagnostic tests* (4<sup>th</sup> ed).

### Postpartum Medications

Medications	Dose, route	Mechanism of Action	Indications for use	Possible side effects	Nursing Responsibilities
Prenatal Vitamin	1 tablet	Vitamin Supplement	Pregnancy	Mega doses can be harmful	Teach pt to take only recommended



	PO qday			to fetus.	amount
Feosol (ferrous sulfate)	325mg PO Once daily	Iron Supplement	Low postpartum Hemoglobin and Hematocrit. Treat and prevent iron deficiency anemia	Constipation, nausea, dark stools, epigastric pain	Assess bowel function for constipation and diarrhea. Observe for S/S of toxicity- stomach pain, fever, nausea
Toradol	15 mg = 1ml IV push q8h in 3 doses	Short management of pain (not to exceed 5 days total)	Pain	Drowsiness, GI bleeding, HA, abnormal thinking, injection site pain, itching	Assess pain (type, location, intensity) prior to and after administration, Evaluate liver function
Setraline	25 mg=.5 tablets PO qday	Antidepressant action (potentiates activity of serotonin).	Pain	Suicidal thoughts, dizziness, drowsiness, fatigue, headache, insomnia, diarrhea, dry mouth, nausea, sweating, tremor	Asses for suicidal tendencies and mental changes, and limit amount of drug available.
Prednisone	5 mg = 1 tab PO	Suppression of inflammation and mod. Of the normal immune response. Minimal corticosteroid activity.	Inflammation (rheumatoid arthritis)	Depression, euphoria, HTN, peptic ulceration, nausea, anorexia, thromboembolism, osteoporosis, cushingold appearance	Assess for adrenal insufficiency, monitor I&O, observe for peripheral edema, wt. gain, rales/crackles, or dyspnea

**Medication references used:**

- *Davis' Drug Guide*
- *Olds' Maternal-Newborn Nursing & Women's Health Across the Lifespan (8<sup>th</sup> ed)*

## Newborn Data

### Newborn History

As stated earlier, the mother is Gravida 2, Para 2, Abortion 0, Living 3. This was her second pregnancy and her third living child. Please refer to table 1 for A.P's prenatal results.

Table 1

	Result	Interpretation
Blood Type/Rh	A+	This has little impact on the newborn because the mother is positive. If she would have been negative she would have needed RhoGam to prevent problems for future pregnancies.
Hepatitis B screen	Negative	This means that the mother does not have hepatitis which is good for the newborn because there is no risk of transferring the virus to the newborn.
VDRL/RPR	Non-reactive	This means that the mother is negative for Chlamydia and gonorrhea. This is good for the newborn because there is no risk of transfer from the mother to the newborn.
Rubella	Immune	This means that the mother is immune to the rubella virus which reduces her risks of contracting the disease. This is good for the newborn because if the mother was not immune and she contracted the disease

		during pregnancy, the virus could have attacked the fetus and caused congenital deformities.
Group B Strep culture	Unknown	
Glucose Screen	107	This is within normal range which tells us that the mother did not have gestational diabetes.

### Labor-description

At 1019 hours on November 29, 2011 a single viable male was delivered by cesarean section, with the umbilical cord wrapped around his neck. His one minute Apgar score was an 8, and his 5 minute Apgar score was an 8. There was meconium staining in the amniotic fluid when they were ruptured. A large amount of light green fluid was suction from his mouth and nostrils. If the meconium reached his lungs, he is at risk for pneumonia, inactivation of the surfactant, mechanical obstruction of the airways leading to pneumothorax, and vasoconstriction of the pulmonary vessels causing persistent pulmonary hypertension (Davidson, Ladewig, & London, 2008). The nuchal cord may have been the cause of the meconium staining, due to causing stress while in utero. The baby boy was also at risk for low Apgar scores, fetal distress, abnormal cardiotocographic trace, anemia, low birth weight, and meconium (Bukan, Kurdoglu, Onan, Sancak, & Yildirim, 2009). The anesthesia that was used for the mother during the cesarean section was an epidural with morphine. His gestational age is 39 weeks 2 days, and he weighed 7 lbs, 14.2 oz (3578 grams) when born. When the Ballard assessment was completed, he measured at 38 weeks 6 days for his actual gestational age. His parents have chosen to bottle feed their infant, and he was fed in the PACU, at his mother's side. .

## Newborn Physical Assessment

### NEWBORN DATA

On October 24, A.P. gave birth to one single male fetus via a cesarean section. After delivery, an Apgar score was determined to evaluate 5 different signs of a newborn directly after birth: heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each sign is then given a score of 0,1, or 2 (Davidson et al, 2008). The first score, the one-minute Apgar, was an 8. A second score, the five-minute Apgar, was then performed and revealed an improved score of 9, only one point shy of a perfect 10 score. The baby boy was delivered at 7 lbs, 14.2 oz, and was at a gestational age of 39 weeks and 2 days after a Ballard assessment was completed, being considered average for gestational age (AGA). This newborn has been fed via bottle formula (Similac w/ iron), and had a 1 oz serving at 0830 hrs, a 1 oz serving at 1100 hrs, and a 1 ½ oz serving at 1330 during my shift, and showed no complications or inability to handle the feedings.

On October 25, the student nurse began his first assessment of the newborn, following the mother's. At the time, the newborn weighed 3511g, and was just having his circumcision completed. The first set of vitals recorded on this infant was as follows: Temperature was 36.8C, his heart rate was 140, and his respiratory rate was 40 breaths per minute. His skin was pink, warm, dry, and intact, and he had good skin turgor. The newborn had a moist, pink mouth, and had no facial abnormalities. Reflexes were apparent and included his moro and suck reflexes, as well as his grasp, babinski, and rooting reflex. All were noted and documented accordingly.

A.P.'s newborn had a soft abdomen with all bowel sounds present normally in all four quadrants. The baby's cord was currently drying, and the clamp was removed. Upon assessing the fontanel, both anterior and posterior were soft, with no signs of molding or deformities present in the head or skull. Breathing was clear, even, and showed no signs of labor. Pulses were present at all points, and he had full range of motion in all extremities. He also had one diaper change during the student's assessment that

consisted of both urine and stool (meconium), and also noted at the time was the slight redness of the penis due to the previous circumcision. A&D ointment was applied as needed. The infant did cry during the end of this assessment, and it was documented as a normal pitched cry.

During the day, a lot of time was spent with the mother and rest of family. At noon, the student nurse returned to complete a vitals check and the following were his findings: His temperature was 36.7°C, his heart rate was 130, and his respirations were 38. The newborn had also just completed a feeding at 1100hrs, and a diaper change was completed at this time by the father. A diaper that consisted of urine alone was noted, and A&D ointment was applied.

At 1425, the baby was awakened at the start of his final assessment, and began crying. Again, this cry was normal pitched and noted as such. A.P. had just finished a feeding with her newborn and changed a wet and soiled diaper that consisted of more meconium. Vitals were taken first and were as follows: Temperature was 37.0°C, heart rate was 135, and his respiratory rate was 42 breaths per minute. The baby had warm, pink, and dry skin with a moist and pink mouth. The student nurse repeated his assessment of the previously assessed reflexes and documented that all were present. The abdomen was soft, had good skin turgor, and presented all normal bowel sound in all four quadrants. The cord was still drying, and both fontanelles were still soft, showing no signs of deformity or molding. Lung sounds were all clear, and respirations were illustrated as even, and unlabored. All extremities demonstrated a full range of motion. The anus was visible, and the penis was still slightly reddened from his circumcision, however mom was still applying A&D ointment to the area. The infant was then swaddled and returned to the arms of the mother.

#### **Patient Assessment Values (Newborn)**

	<b>Assessed at 800</b>	<b>Assessed at 1200</b>	<b>Assessed at 1500</b>	<b>Normal values</b>	<b>Analysis</b>
<b>Heart Rate</b>	140	130	142	120-160	WNL

<b>Respirations</b>	40	30	42	30-60	WNL
<b>Temperature *axillary</b>	36.8C	36.7C	37.0C	36.4-37.2	WNL

### Newborn Laboratory data

Hemoglobin	9.8. This low because he was anemic, and was being treated with Similac with iron
Hematocrit	2.8 This low because he was anemic, and was being treated with Similac with iron
RBC	3.30 This low because he was anemic, and was being treated with Similac with iron
WBC	8.2
Glucose	62

### Newborn Medications

Newborn medication information was unavailable.

### Nursing Care Plan

**Nursing Diagnosis #1:** Risk for fluid volume deficit related to blood loss during surgical procedure.

**STG:** Patient will maintain fluid intake as able during the shift.

**Interventions:**

- 1) Monitor intake and output throughout the shift.  
Rational: To monitor for approximately equal intake and output, dependent on dehydration.
- 2) Provide clear fluids as permitted.  
Rational: Helps to promote hydration and may provide some calories for energy.

**LTG:** Patient will demonstrate adequate hydration by discharge.

**Interventions:**

- 1) Assess production of mucus, tears in eyes, and skin turgor.  
Rational: Monitors for signs of adequate hydration or dehydration.
- 2) Monitor vital signs tid, and as needed.  
Rational: Increases in temperature, BP, pulse, FHR, and respirations may indicate dehydration.

**STG Evaluation:** Goal met, patient maintained adequate fluid intake during the shift.

**LTG Evaluation:** Unable to assess at this time.

**Nursing Diagnosis # 2:** Risk for infection related to tissue trauma secondary to surgical incision.

**STG:** Patient will demonstrate technique to reduce risks and promote healing.

**Interventions:**

- 1) Demonstrate and encourage handwashing techniques and appropriate disposal of soiled underpads, perineal pads, and linen, as needed.  
Rational: Helps to decrease the spread of infection.
- 2) Educate A.P. about selecting foods high in protein, vitamin C, and iron, and increase fluid intake to 2000 ml/day, when appropriate.  
Rational: Protein promotes healing and regeneration of tissue. Iron is needed to produce hemoglobin. Vitamin C facilitates absorption of iron. Increasing the fluid intake prevents urine stasis and kidney problems.

**LTG:** Patient will be free of infection, afebrile, and have normal lochial flow and character.

**Interventions:**

- 1) Monitor temperature and pulse routinely and as indicated; note signs of chills, anorexia, or malaise.  
Rational: A temperature elevation above 100.4°F may indicate infection.
- 2) Note of amount and odor of lochial discharge as needed.  
Rational: Discharge that is purulent and foul smelling indicates infection.

**STG Evaluation:** Goal met. Patient demonstrated techniques that reduce risks and promote healing.

**LTG Evaluation:** Unable to be evaluated.

**Nursing Diagnosis # 3:** Risk for constipation related to decrease in physical activity.

**STG:** Patient will increase physical activity by end of shift.

**Interventions:**

- 1) Recommend regular exercise, including daily walking program, as needed.  
Rational: Activity enhances muscle tone, stimulates peristalsis, and enhances sense of well-being.

**LTG:** Patient will reestablish usual evacuation pattern, by discharge.

- 1) Encourage adequate fluid intake, as needed.  
Rational: Warm beverages promote soft stool which eases evacuation, and promotes client self-care.
- 2) Encourage a diet high in roughage, fruits, and vegetables, when indicated.  
Rational: Increases peristalsis and promotes soft form stool.

**STG Evaluation:** Goal met. Patient increased physical activity by afternoon, as evidence by her walking speedily through the unit.

**LTG Evaluation:** Goal unable to be assessed.

**Nursing Diagnosis # 4:** Pain related to tissue trauma, secondary to surgery.

**STG:** Infant will show increased tolerance of diaper changes within 24 hours.

**Interventions:**

- 1) Apply generous amounts of protective ointment with each diaper change.  
Rationale: An adequate barrier at the incision site will help avoid unnecessary friction and pain, while the topical anesthetic will lessen pain from the incision.
- 2) Teach parents how to apply ointment, when indicated.  
Rational: Teaching the parents how to apply ointment to the circumcision will help to provide comfort for their son.

**LTG:** Infant will demonstrate decreased discomfort as evident by decreased crying fits and uninterrupted sleep periods by discharge

**Interventions:**

- 1) Change wet diapers frequently and reapply clean diaper loosely, as indicated.  
Rational: Urine may irritate the open wound and cause added pain for the infant. Applying the new diaper loosely will avoid putting added pressure on the incision.

**STG Evaluation:** Goal met, infant showed increased tolerance of diaper changes.

**LTG Evaluation:** Unable to assess if goal was met or not.

### Conclusion

This opportunity provided us with a vital learning experiences and knowledge regarding maternal and newborn assessments. The delivery of this newborn proved to have no real complications, however the chance was there due to the mother's medical history and current diagnosis with Rheumatoid Arthritis, and the medications that were involved during pregnancy. Also, repeat C-sections pose various threats to both the mother and baby in that the lining of the uterus can thin out, adhesions can occur, as well as anemia. As for the baby, breathing problems can be an issue, as well as low blood sugar and infection. Fortunately, for both the mother and baby, none of our assessments or investigations revealed any grave threats or effects from these issues. Through using patient history, we were able to investigate as to whether or not any problems could arise in the future for either the mother or baby. Although none of our assessments proved this, or showed any remarkable abnormalities, it did however provide us with sources of information to gather and set up a nursing care plan for both that baby and the mother. This experience gave the student nurses an opportunity to improve our nursing judgments and care for patients that we may face in the future.



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