Obstetrics Patient Analysis

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Introduction

C.B. is a 29 year old Caucasian woman who lives in Stark County and regularly attends her catholic church every Sunday. She graduated from college with a bachelor's degree in teaching. She does not smoke cigarettes, use drugs, or drink alcohol, but her husband smokes cigarettes outside the home. C.B. was admitted to the Aultman birth unit on October 29th in labor anticipating the birth of a full term infant. Term refers to the normal length of pregnancy, which is 38 to 42 weeks gestation (Davidson, Ladewig, & London, 2008). Gestation describes the number of weeks since the first day of the last menstrual period (Davidson, Ladewig, & London, 2008). C.B's last menstrual period was January 22, 2010. Her estimated date of delivery (EDD) was October 29, 2010 according to Nagele's rule, a calculation used to determine the EDD (Davidson, Ladewig, & London, 2008). To use Nagele's rule, subtract three months from the start of the woman's last menstrual period, then add 7 days. (Davidson, Ladewig, & London, 2008). C.B's gynecological history is described as gravida 1, para 1. Gravida is a term meaning any pregnancy (Davidson, Ladewig, & London, 2008). Since she is a gravida 1, this indicates that this is her first pregnancy. Para indicates a birth after 20 weeks gestation, whether the infant is born living or dead (Davidson, Ladewig, & London, 2008). Medications that C.B. took during pregnancy include one prenatal vitamin with folic acid a day and Keflex three times a day to treat an infection she has in her big toe. C.B. has no known allergies and has a history of mitral valve prolapse, migraines, and has had her wisdom teeth removed. She has no sexually transmitted infections, nor a history of gynecologic disorders or surgeries. C.B. gave birth vaginally to a baby girl on October 30th, at 40 weeks gestation and 1 day, but had some difficulty along the way.

Reasoning for Client Analysis

Complications that put C.B. at risk during delivery include testing positive for Group Beta Streptococcus, or GBS. GBS is a bacterial infection found in the lower gastrointestinal or urogenital tract (Davidson, Ladewig, & London, 2008). GBS could be transmitted to the mother's baby in utero, or during birth, and may result in severe medial diseases such as respiratory distress syndrome, pneumonia, apnea, and shock to the newborn (Davidson, Ladewig, & London, 2008). Women who are tested positive for carrying GBS need to receive antibiotic prophylaxis at the onset of labor, or when her water breaks, to try and prevent the fetus from becoming colonized to the infection (Davidson, Ladewig, & London, 2008). GBS is a major concern during any pregnancy and precautions must be taken before delivery.

Any threatening condition to the mother or the fetus such as intrapartal infection, prolonged second stage labor, exhaustion, or nonreassuring fetal status, which could be relieved by birth, indicates the need for forceps assistance (Davidson, Ladewig, & London, 2008). C.B. had difficulty with advancing through the second stage of labor and her delivery was being delayed due to the inability of the fetus to pass down through the birth canal. With no progression in delivery, the attending doctor chose for C.B.to have a forceps-assisted birth, otherwise known as instrumental delivery, after nonreassuring fetal patterns were present. Forceps are designed to assist the birth of the baby by providing traction, or rotating the head of the fetus to the correct position to deliver (Davidson, Ladewig, & London, 2008). Maternal risks that occur with the use of forceps include extensions of a median episiotomy into the anus, resulting in increased bleeding, ecchymosis, hematomas, pelvic floor injuries, and are more likely to get a third or fourth degree laceration (Davidson, Ladewig, & London, 2008). Forceps can also cause some edema and ecchymosis, or bruising, along the sides of the face and head of

newborns (Davidson, Ladewig, & London, 2008). Nonreassuring patterns indicate the need for forceps delivery because the fetus is becoming distressed (Davidson, Ladewig, & London, 2008). C.B's fetus showed variable decelerations during the second stage of labor indicating fetal distress that may have resulted in the meconium staining that was present in the amniotic fluid. A variable deceleration indicates a decrease in the fetal heart rate below the baseline, occurring before or after a contraction, caused by umbilical cord compression (Davidson, Ladewig, & London, 2008). Meconium staining of the amniotic fluid appears when the baby has a bowel movement in utero most likely occurring when the fetus is in distress. Meconium staining increases the risk of fetal asphyxia and meconium aspiration (Davidson, Ladewig, & London, 2008). Overall C.B's complications during pregnancy made her an excellent candidate for our analysis.

Prenatal Data

Prenatal Tests	Normal Values	Client Results	Analysis
Type & Rh	A, B, O	A+	The Rh factor is positive signifying that Rh antibodies are present in the maternal bloodstream eliminating the risk for isoimmune hemolytic disease to the fetus. No need for Rh immune globulin to be given (Davidson, Ladewig, & London, 2008).
Hemoglobin (Hgb) & Hematocrit (Hct)	Hgb: 12-16 g/dL Hct: 38%-47%	Hgb: 14.5 g/dL Hct: 42.6%	Client's Hgb and Hct are within normal range indicating client is not anemic (Davidson, Ladewig, & London, 2008).
VDRL/RPR	Nonreactive	Nonreactive	Client is not infected

			with Syphilis (Davidson, Ladewig, & London, 2008).
Rubella	Immune	Immune	Client is immune to German Measles (Davidson, Ladewig, & London, 2008).
Urine C & S	Negative	Negative	Client does not show any abnormal findings such as red blood cells, protein, white blood cells, or casts in urine (Davidson, Ladewig, & London, 2008).
Sickle Cell	Non applicable	Non applicable	Non applicable
Chlamydia/Gonorrhea	Negative	Negative	Client is not infected with Chlamydia or Gonorrhea (Davidson, Ladewig, & London, 2008).
PAP test (previously tested on 5/20/09)	Negative	Negative	Client does not show presence of any abnormal cells (Davidson, Ladewig, & London, 2008).
Triple Screen	Non applicable	Non applicable	Non applicable
1 hr Glucose Tolerance	Less than 130 mg/dL	85mg/dL	Client's glucose is within normal range, therefore no further testing is indicated and the client is not at risk for gestational diabetes (Davidson, Ladewig, & London, 2008).
3 hr Glucose Fasting, 1hr, 2hr, 3hr	Non applicable	Non applicable	Non applicable

C.B. had an ultrasound done on Oct. 28th, revealing flank pain, hematuria, and pregnancy. Ultrasound is a diagnostic and screening tool that uses high frequency sound waves that reflect off a small electrical voltage displaying a picture on a screen (Davidson, Ladewig, & London,

2008). Fetal activity, fetal presentation, placental location, and fetal viability can be determined from an ultrasound. In the case of C.B., who is 39 weeks and 6 days, hematuria is expected due to the release of the mucus plug, a natural barrier to prevent infection that is created from accumulating secretions in the cervical canal. As effacement and cervical softening occurs the mucus plug is released in the form of bloody show. Bloody show is a combination of the cervical secretions and blood released from the exposed cervical capillaries. Bloody show indicates impending labor and within 24 to 48 hours labor will be under way (Davidson, Ladewig, & London, 2008). Ultrasound is a useful technique to determine normal progression in labor.

Labor and Delivery

Theoretic separations in the process of labor have been identified to assist healthcare professionals in determining the distinct characteristics present with each stage of labor. Labor is divided into four stages: the first stage, which is also subdivided into the latent, active and transitional phase, the second stage, third stage, and fourth stage of labor. The phases of labor are characterized by physical and psychological changes that are natural to the labor process. In the first stage, during the latent phase women begin to have the onset of regular contractions, with effacement and cervical dilation from 0 to 3cm, but no fetal descent is noted (Davidson, Ladewig, & London, 2008). Contractions increase in intensity, frequency, and duration. Frequency refers to the time from the beginning of one contraction to the beginning of the next contraction. Intensity describes the strength of the uterine contraction. The duration of each contraction is measured from the beginning of one contraction to the end of the same contraction. In this phase, contractions last 20-40 seconds with a frequency of 3-30 minutes (Davidson, Ladewig, & London, 2008). Coping with mild contractions, mothers are mobile and express relief that the labor process has begun. Anxiety increases with a feeling of losing control, as a

woman transitions into the active phase of labor. During this stage, the cervix dilates from 4 to 7 cm. The fetus begins to descend as contractions become more intense, 2-5 minutes apart lasting 40-60 seconds. A woman becomes restless when entering the transition phase. Cervical dilation progresses from 8 to 10cm. with contractions every 1 to 2 minutes lasting 60-90 seconds. At the completion of this stage, a baby is ready to be born. The second stage of labor is when the cervix is completely dilated and effaced, and uterine contractions, along with pushing effort, help to move the baby through the birth canal and enter the world (Davidson, Ladewig, & London, 2008). Once the baby is removed from the vagina, the placenta must be expelled. During the third stage of labor, the placenta separates from the uterine wall creating the urge for a woman to push until the remaining tissue is removed. With the placenta removed from the vagina, the fourth stage of labor begins immediately after delivery where physiologic readjustment takes place. With the amount of blood loss that occurred throughout the delivery, the uterus must contract in order for blood to collect into the venous beds preventing hemorrhage (Davidson, Ladewig, & London, 2008). Dividing the stages of labor into benchmarks, health professionals know what physiologic changes to expect with labor progression.

Certain factors complicated the pregnancy of C.B. The birth passageway, birth passenger, fetal attitude, fetal lie, and fetal presentation are all critical factors in labor that must complement each other for successful labor progression and delivery (Davidson, Ladewig, & London, 2008). During the second stage of labor, C.B. was suspected of cephalopelvic disproportion, a condition in which the fetal shape, size, or position doesn't allow passage through the maternal pelvis (Davidson, Ladewig, & London, 2008). This was suspected because her cervix was edematous and the baby was not progressing into the fetal station needed for delivery. Fetal station refers to the relation of the presenting part of the body to the imaginary line that is drawn at the ischeal

spines, which is the narrowest part of the maternal pelvis (Davidson, Ladewig, & London, 2008). Progressing from negative to positive stations, the fetus moves down through the maternal pelvis until birth. In the case of C.B., the baby successfully progressed from +1 to +2 within 2 hours. The birth passenger, or fetus, displayed a fetal attitude that favored vaginal delivery where the head is flexed with chin touching the chest, arms crossed in front of the chest, and legs flexed at the knees. The fetus was in a horizontal lie in a right occiput posterior position in which the occipital bone of the fetal head is to the right of the maternal pelvis facing towards the maternal abdomen. Birth is complicated due to the larger diameter presented when in the posterior position increasing the pressure felt on the maternal sacral nerves resulting in the urge to push (Davidson, Ladewig, & London, 2008). In order to assist the fetal passage through the vagina, forceps were used to pull the fetus out.

Premonitory signs of labor that were present for C.B. included Braxton hicks contractions and cervical changes. She arrived at the emergency department of Aultman hospital at 11:53 a.m. Oct. 29th dilated 2.5 cm. with irregular contractions. These contractions are known as Braxton hicks contractions and are present before the onset of labor (Davidson, Ladewig, & London, 2008). Pain occurs in the abdomen and groin without advancement in cervical dilation, effacement, or an increase in duration and intensity during false labor (Davidson, Ladewig, & London, 2008). The cervix is a firm long, thick structure at the beginning of pregnancy until the cervix softens to enhance dilation and effacement in preparation for birth. Cervical dilation refers to the increasing diameter of the cervix, from 1cm. to 10cm, to allow passage of the fetus. When cervical dilation is present, effacement, which is taking up of the cervical canal into the uterine side walls, occurs due to contractions pressing the fetus towards the maternal pelvis (Davidson, Ladewig, & London, 2008). Being in false labor, C.B. was sent home.

At 10:45 p.m. on Oct. 29th, C.B. went to the hospital with regular contractions that were increasing in frequency and intensity. With labor under way, an ultrasound transducer, a doppler device with computerized logic to interpret and count doppler signals, was placed over the fetal back on the maternal abdomen with an elastic belt. Emitting ultrasonic beams, the transducer reflects off the fetal heart and returns to the transducer displaying fetal heart rate on a screen to be analyzed by the nurse (Davidson, Ladewig, & London, 2008). The graphic recording of fetal heart tones show variability, accelerations and fetal heart rate. Baseline variability is described as fluctuations of 2 cycles per minute or greater displaying quantified amplitude and is important in determining the balance between the sympathetic and the parasympathetic nervous system effect on the fetal heart rate. Variability can be absent, where no amplitude is detected, minimal, where amplitude of 5 beats per minute is detected, moderate, where amplitude range of 6 to 25 beats per minute is detected, or marked variability which is an amplitude greater than 25 beats per minute. Accelerations are characterized as an increase of 15 beats per minute above the baseline fetal heart rate lasting for a total of 15 seconds. Accelerations may be caused by fetal movement, stimulation, or an environmental stimulus and are reassuring of fetal well-being (Davidson, Ladewig, & London, 2008). At 12:19 a.m. Oct. 30th, C.B. was in the active phase of labor with fetal heart tones ranging from 130-140 with moderate variability, and contractions 2 minutes apart.

At 12:22 a.m. Oct. 30th, C.B. was breathing through contractions with fetal heart tones in the 130's with accelerations and moderate variability. At this time, Oxytocin, a medication used to achieve a desirable labor pattern, was running at 20 units in 1000ml LR at 125 ml/hr to induce labor. The goal is to have three uterine contractions in 10 minutes lasting 40-60 seconds (Davidson, Ladewig, & London, 2008). At this time in pregnancy, since C.B. was tested positive

for GBS, the infection must be treated before delivery (Davidson, Ladewig, & London, 2008). Artificial rupture of membranes, or when the physician breaks the mother's water, was delayed in order to give 5 million units of Penicillin IV immediately, then 3 million units every four hours until delivery to prevent transmission of infection to the fetus. At 3:51a.m. Oct. 30th, C.B. had her membranes ruptured producing a moderate amount of clear amniotic fluid to emerge. After the membranes were ruptured, the fetal heart rate was 120 with moderate variability, accelerations, and contractions every 1-3 minutes.

At 7:24 a.m. Oct. 30th, C.B. abandoned the desire to have a natural childbirth and received an epidural. She received an epidural block, ropivicaine 0.2% with fontanel 2mcg/ml running at 10ml/hr, in the epidural space of the lumbar. A lumbar epidural involves injecting an anesthetic through the epidural space by sterile procedure creating a continuous block. Eighty-five percent of women experience complete pain relief through active labor, birth, and episiotomy repair, if indicated (Davidson, Ladewig, & London, 2008). Once an epidural has been placed, certain disadvantages become apparent. When getting pain relief by epidural, the client must remain on bed rest, have a urinary catheter placed because they are unable to void, and are incapable of moving their lower extremities. The number one medical complication that occurs with epidurals is hypotension as a result of peripheral vasodilation, which can be prevented by preloading a rapid infusion of IV fluids (Davidson, Ladewig, & London, 2008). C.B. chose to receive pain relief by epidural, after knowing the advantages and disadvantages.

At 9:52 a.m. Oct. 30th, C.B. transitioned to the second stage of labor as evident by 100% effacement. The fetal heart rate was 145 with minimal variability, acceleration, and contractions every 3-4 minutes. Upon palpation, the doctor revealed that the cervix was edematous, but palpable in a side lying position. The fetal head remained at a +1 station creating a complication

for delivery. Suspicion of cephalopelvic disproportion would have been assumed if the cervix remained edematous without change in fetal station. With slow progression, the fetal head moved through the birth canal eliminating cephalopelvic complication.

At 10:28 a.m. Oct. 30th, the pitocin was turned from 10 to 2 due to nonreassuring fetal heart tones. The fetus was determined to be in the right occiput posterior position when they elected to use instrumental delivery using tucker forceps because the fetus was showing variable decelerations, with decreasing variability. With the help of forceps, the fetus was delivered with the next contraction resulting in some damage to the perineum. The doctor performed an episiotomy, which is an incision of the perineum to facilitate delivery of the baby's head, to prevent further damage to her third degree laceration. A third degree laceration extends through the perineal skin, vaginal mucous membranes, perineal body, the anal sphincter, and may extend up the anterior wall of the rectum (Davidson, Ladewig, & London, 2008).Several minutes after the delivery of the fetus, the third stage of labor was initiated. As C.B. pushed, the placenta was expelled. The doctor checked for intact mucosa before repairing the laceration and after repairing the laceration. After repair of the laceration, 1000mcg Cytotec was given per rectum to prevent postpartal hemorrhage in the fourth stage of labor. Cytotec causes the uterus to contract decreasing the amount of blood loss from the exposed capillaries where the placenta was (Davidson, Ladewig, & London, 2008). C.B. went through a troubling labor and delivery, giving birth to a healthy baby.

C.B. gave birth to a baby girl weighing 7 pounds and 11 ounces, at 40 weeks and 1 day gestation. Once wiped off, minimal bruising on the face became apparent due to the use of forceps. The newborn is able to move all of her extremities with an Apgar score of 8 at 1 minute and a score of 9 at 5 minutes. A newborn receives an Apgar score, on a scale of 0-10, 1 minute

after birth and 5 minutes after birth to evaluate the newborn's physical condition and determine the need for resuscitation. Criteria assessed include fetal heart, respiratory effort, muscle tone, reflex, and skin color. An Apgar score of 7 to 10 indicates a newborn is in good condition (Davidson, Ladewig, & London, 2008). C.B.'s baby received good Apgar scores, and presented no need for resuscitation.

Postpartum Assessment

Vital Signs	Heart rate: 64 Respirations: 20 Temperature: 36.8 Blood Pressure: 113/74 Pain: 4/10, The client states "My vagina hurts when I move around a lot."
Breasts	Client had soft, non-tender breasts; nipples were normal and non-tender; Client was breast feeding and only felt some tenderness when able to nurse. Supplemental feeding of breast milk by breast pump has been implemented when no latch is achieved.
Uterus	Firm, midline, 2 fingerbreaths below the umbilicus
Bladder	No distention visible; Client has been voiding adequately with no pain or difficulty
Bowel	Bowel sounds all present, normal; Client has been passing flatus regularly
Lochia	Moderate amount of rubra with no odor; no clots present
Episiotomy	Well approximated with 3rd degree lacerations to the perineum; small red hemorrhoid visible
Homan's sign	No pain, swelling, or tenderness in legs; +1 edema around both ankles, no redness noted, pedal pulses +2 bilaterally
Emotions	No signs of postpartum blues noticeable; Client is adapting well to new motherhood and excited to take her baby home, asking questions, ready to learn. Client expresses fatigue after getting little sleep throughout the night stating "It feels likes every time I am starting to fall asleep, I have to wake back up to breastfeed, and experience a hard time falling back asleep."
Bonding	Client is bonding well, cuddling infant, talking to infant, exploring infant's skin, eye to eye contact with infant

Postpartum Nutrition Assessment

Physical properties change after pregnancy. C.B. is 5 foot 3 inches, with short brown hair and hazel eyes. Her pre-pregnant weight was 120 pounds. Throughout her pregnancy she gained 26 pounds, falling in the normal range of a 25-30 pound total weight gain. Her current weight is 135 pounds resulting in a body mass index of 24. She hopes to get back down to 120 pounds by eating healthy, exercising at least 30 minutes a day, and deciding to breast feed her baby which will increase her metabolism. Being able to afford a healthy lifestyle, without any existing food restrictions, C.B. sees this as a realistic goal. She is financially stable and able to support herself without any governmental assistance. Doing the majority of the cooking and shopping, C.B. prepares nutritious meals. When asked to recall her diet in the last 24 hours, she explained, "Yesterday for breakfast I had coffee and two pieces of French toast with syrup, with a side of fruit. At lunch time, I ate a turkey club sandwich and a bag of potato chips with a glass of milk, but I felt nauseated at dinner time and did not eat anything. Later in the evening I was able to snack on a few crackers with peanut butter. So far today I have had nothing but a glass of water." Although C.B. has adequate intake, docusate sodium, a stool softener, was prescribed to prevent constipation. Overall, C.B. has worked towards keeping herself healthy for the benefit of her and her baby.

Postpartum Laboratory Results

Taken on 10-30-2010 at 1250

Laboratory Data	Client Results	Normal Values	Analysis
WBC This test measures the amount of white blood cells in the body, and is helpful	13,390	5,000-10,000/mm3	C.B. was tested positive for Group B streptococcus bacteria. She has been on Keflex due to infection from an ingrown toenail. The normal response to infection is an increase in white blood cells in

in detecting infection or immunosuppression (Pagana, & Pagana, 2006)			order to destroy the invading bacteria. Nonpathologic leukocytosis occurs during labor and in the immediate postpartum period. An increase in erythrocyte sedimentation rate and leukocytosis obscure diagnosis of an acute infection. Diagnosis of an infection is accurate at this time because it was present before labor. (Davidson, Ladewig, & London, 2008).
RBC Red blood cells are measured to evaluate the total number of red blood cells in the peripheral blood (Pagana, & Pagana, 2006)	3.44	4.2-5.4	Rapid blood loss in the first 24 hours accounts for half of the red blood cell volume gained during pregnancy (Davidson, Ladewig, & London, 2008).
Hgb This test is a measurement of the total amount of hemoglobin in the blood (Pagana, & Pagana, 2006)	11.1 g/DL	12-16 g/dL	Mobilization of interstitial fluid leads to an increase in plasma volume causing hemodilution resulting in low hemoglobin levels (Davidson, Ladewig, & London, 2008).
Hct Hematocrit is tested to measure the red blood cell number and volume (Pagana, & Pagana, 2006)	32.1%	37%-47%	Hematocrit levels are low due to blood loss and the changing blood volume that occurs in the early postpartum period. Blood loss increases after a midline episiotomy extension was made to assist in delivery (Davidson, Ladewig, & London, 2008).

Postpartum Maternal Medications

Drug & (Classification)	Indications & Action	Side Effects	Route/Dosage	Nursing Responsibilities
Keflex	Treatment of	Diarrhea,	PO: 250	May be administered on a

(anti-infective, first generation cephalosporin)	skin and skin structure infections caused by susceptible organisms Action: Bactericidal action against susceptible bacteria.	nausea, anorexia, maculopapular and erythematous rashes, urticaria	milligrams to 1 gram every 6 hours or 500 milligrams every 12 hours. Maximum 4 grams daily. Client was ordered: 500 milligrams three times a day	full or empty stomach. Administration with food may minimize GI irritation. Assess client for infection (vital signs; appearance of wound, sputum, urine, and stool; WBC) at beginning and throughout therapy. Obtain a history to determine previous use of and reactions to penicillins or cephalosporins before initiating therapy. Observe client for signs and symptoms of anaphylaxis (rash, pruritis, laryngeal edema, wheezing). Discontinue drug and notify physician immediately if these problems occur. Instruct client to take medication at evenly spaced times and to finish the medication completely as directed, even if feeling better. Take missed doses as soon as possible unless almost time for next dose; do not double dose. Advise client to report signs of superinfection (furry overgrowth on tongue, vaginal itching or discharge, loose or foul-smelling stools) and allergy. Instruct client to notify physician if fever and diarrhea develop, especially if diarrhea develop, especially if diarrhea contains blood, mucous, or pus. Advise client not to treat diarrhea without consulting health care provider.
Docusate sodium	Prevention of constipation	Throat irritation,	PO: 50-400 milligrams in	Administer with a full glass of water or juice. May be

(stool softener, laxative)	Action: Promotes incorporation of water into stool, resulting in softer fecal matter and passage of stool. May also promote electrolyte and water secretion into the colon.	mild cramps, rashes	1-4 divided doses Client was ordered: 100 milligrams twice a day	administered on an empty stomach for more rapid results. Do not administer within 2 hours of other laxatives. May cause increased absorption. Assess for abdominal distension, presence of bowel sounds, and usual pattern of bowel function. Assess color, consistency, and amount of stool produced. Advise clients that laxatives should be used only for short-term therapy because long term therapy may cause electrolyte imbalance and dependence. Encourage clients to use other forms of bowel regulation, such as increasing bulk in the diet, increasing fluid intake (6-8 full glasses/day), and increasing mobility. Instruct clients with cardiac disease to avoid straining during bowel movements. Advise client not to use laxatives when abdominal pain, nausea, vomiting, or fever is present.
Prenatal Vitamin (vitamin)	Treatment and prevention of vitamin deficiencies Action: Prevention of deficiency or replacement in clients whose nutritional status is questionable.	Urine discoloration (preparations with B vitamins)	PO: 1 tablet per day Client was ordered: 1 tablet every day	Assess client for signs of nutritional deficiency before and throughout therapy. Toxicity rarely occurs. Encourage client to comply with recommendations of health care professional. Explain that the best source of vitamins is a well-balanced diet with foods from the 4 basic food groups.

Benzocaine (anesthetic)	Relief of pruritis or pain associated with minor skin disorders. Action: Local anesthesia with subsequent loss of sensation or relief of pain and/or pruritis.	Burning, edema, irritation, stinging, tenderness, urticaria,	Topical ointment: Apply ointment as needed Client was ordered: ointment to perineum and episiotomy sutures as needed	Assess type, location, and intensity of pain before and a few minutes after administration. Assess integrity of involved skin (perineum) before and periodically throughout course of therapy. Notify physician if signs of infection or irritation develop. Instruct client on correct application technique, emphasize need to avoid contact with eyes. Caution client that these agents should not be applied for prolonged periods or to large areas, especially if skin is abraded or broken. client could consult physician before using these agents for conditions other than indicated. Advise client to discontinue use and notify health care professional if erythema, rash, or irritation at site of administration occurs; area becomes infected; medication is swallowed; or condition worsens or does not improve within 7 days.
Hydrocortisone acetate (corticosteroid)	Management of inflammation and pruritis associated with skin problems such as hemorrhoids. Action: Suppression of dermatologic	Atrophy, maceration, secondary infection, striae, miliaria with occlusive dressings	Topical foam: Apply to affected area 1-4 times daily Client was ordered: 1 application to rectum as needed	Assess affected skin before and daily during therapy. Note degree of inflammation and pruritis. Notify health care professional if symptoms of infection (increased pain, erythema, purulent exudate) develop. Instruct client on correct technique of administration of the medicine, stressing importance of avoiding the eyes. Instruct client to inform health care professional if

	inflammation and normal immune processes.			symptoms of underlying disease return or worsen or if infection develops.

***All of the medication information above was obtained from Davis' drug guide for nurses.*

Newborn Assessment

Assessment of newborn 2 days old at 8:45a.m.	
Temperature	98.1
Heart Rate	120
Respirations	35
Skin	Jaundice
Mouth	Pink & moist
Moro Reflex	Present
Suck Reflex	Present
Abdomen	Soft, symmetrical, non-distended
Bowel Sounds	Present in all 4 quadrants
Cord	Drying, cord care done
Fontanels	Anterior and posterior fontanels soft and level
Tone	Good tone
Cry	Vigorous cry, easily consoled.
Extremities	Full range of motion
Respiratory	Lungs clear bilaterally. Respirations even and unlabored
Cardiovascular	Heart rhythm regular, brachial pulse +2
Sensor	Intact
Weight	7 lbs. 5oz.
Pain	0 using NIPS scale
Elimination	Voids adequately, passing meconium
Nutrition	Breastfeeding every 2-3 hours. Trouble with latching on. Using breast pump as alternative when needed. Lactation consulted. Last fed at 6:00a.m. using breast pump.

Newborn Laboratory Results

Laboratory Data	Client Results	Normal Values	Analysis
Bilirubin This test is used to evaluate liver function, and is part of the evaluation of a newborn with jaundice. (Pagana, & Pagana, 2006)	10.2 mg/dL	1.0-12.0 mg/dL	Bilirubin is within normal limits, but the yellow discoloration, known as jaundice, is recognized when the total serum bilirubin exceeds 2.5 mg/dL. Physiologic jaundice of the newborn occurs if the newborn's liver is immature and does not have enough conjugating enzymes. This results in a high circulating blood level of unconjugated bilirubin, which can pass through the blood-brain barrier and deposit in the brain cells of the newborn, causing encephalopathy, or kernicterus (Pagana, & Pagana, 2006).

Newborn Medications

Drug & (Classification)	Indications & Action	Side effects	Route/Dosage	Nursing Responsibilities
Erythromycin (anti-infective)	Prophylaxis of ophthalmia neonatorum Action: Inhibits protein synthesis; usually bacteriostatic in high concentrations or against highly susceptible organisms	Irritation, blurred vision	Topical ointment: Apply a ribbon of ointment about 1 centimeter long in lower conjunctival sac of each eye shortly after birth Client ordered: 0.5 ointment in both eyes four times a day	Clean eye area of excessive discharge before application.
A & D ointment	This ointment is used to treat irritated, chapped, or dry skin	None applicable	Client ordered: 1 ointment application as needed	Properly cleanse genital area before applying.

***All of the medication information above was obtained from Davis' drug guide for nurses.*

Physiological Nursing Diagnosis

Maternal Nursing Diagnosis:	Acute pain related to perineal damage secondary to labor and delivery as evident by 3rd degree lacerations and episiotomy
Short term Goal:	Client will report pain less than 3 on a 1-10 pain scale within 1 hour.
Long term Goal:	Client will express successful pain management before end of hospital stay as evident by ambulation and proper bowel and bladder elimination.
Interventions:	1. **Intervention:** Use peri-bottle following each voiding or defecation and as needed (Davidson, Ladewig, & London, 2008). **Rationale:** Squirting warm tap water to the perineum, provides relief, properly cleanses and promotes wound healing to the episiotomy and laceration (Davidson, Ladewig, & London, 2008). 2. **Intervention:** Topical anesthetics should be applied after a sitz bath or perineal care and as needed (Davidson, Ladewig, & London, 2008). **Rationale:** Topical anesthetics provide relief of postpartal perineal pain and discomfort (Bick, 2009). 3. **Intervention:** Educate the client about self care to the perineum area including how to wipe in a blotting motion after voiding starting from the front and proceeding to the anal area, application of the perineal pad by placing it from front to back placing the front portion against the perineum first, and the importance of changing perineal pads regularly (Davidson, Ladewig, & London, 2008). **Rationale:** Wiping from front to back prevents contamination to the anal area and replacing perineal pads regularly will prevent infection (Davidson, Ladewig, & London, 2008). 4. **Intervention:** Sitz bath three times a day or as needed (Davidson, Ladewig, & London, 2008). **Rationale:** Warm water from the sitz bath provides comfort, decreases pain, and increases circulation to the tissues promoting wound healing and reducing the incidence of infection (Davidson, Ladewig, & London, 2008).
Evaluation of Goal:	The client reported a pain level of 1on a scale of 1-10, showed improvement with pain management by ambulating regularly, having a bowel movement, and had no complaints of difficult urination by the end of hospital stay.

Psychological Nursing Diagnosis

Maternal Nursing Diagnosis:	Sleep Pattern Disturbance related to new maternal role as evident by the client reporting fatigue and her duty to breastfeed every 2-3 hours.
Short term Goal:	Client will initiate rest periods throughout the day and retire early in the evening by the end of the first postpartal day.

Long term Goal:	Client reports that she feels rested and has improved quality of sleep by end of hospital stay.
Interventions:	1. **Intervention:** Organize care to allow minimum disturbance and provide a quiet environment as needed (Doenges, Kenty, & Moorhouse, 1988). **Rationale:** This will help to promote sleep, rest, relaxation and reduce environmental stimuli (Doenges, Kenty, & Moorhouse, 1988). 2. **Intervention:** Arrange for newborn to remain in the holding nursery as mother requests (Davidson, Ladewig, & London, 2008). **Rationale:** The mother has adequate time to rest without interruptions from neonate. Maternal anxiety decreases with knowledge that her infant is in good care, promoting relaxation (Davidson, Ladewig, & London, 2008). 3. **Intervention:** Encourage mother to sleep with infant crib at bedside and to sleep in a side-lying position throughout the night (Hunter, Rychnovsky, & Yount, 2009). **Rationale:** When needing to breastfeed, the mother has easy access to the infant without having to sit up, resulting in less fatigue and the mother feeling more rested (Hunter, Rychnovsky, & Yount, 2009). 4. **Intervention:** Educate the mother upon discharge to avoid performing unnecessary chores and activities for the first month postpartum **(**Davidson, Ladewig, & London, 2008). **Rationale:** Mothers that attempt to do it all end up feeling exhausted and irritable (Davidson, Ladewig, & London, 2008).
Evaluation of Goal:	The client notified personnel when wanting periods of rest and having someone take her infant to the nursery, also by reporting that she feels more refreshed and rejuvenated from getting adequate rest before the end of hospital stay.

Educational Nursing Diagnosis

Maternal Nursing Diagnosis:	Knowledge deficit related to unfamiliar physiological and emotional changes secondary to first time pregnancy as evident by client verbalizing she needs answers to questions she is unsure about.
Short term Goal:	Client verbalizes understanding of physiologic changes after teaching has been completed.
Long term Goal:	Client will express what she has learned by providing appropriate care for herself during hospital stay.
Interventions:	1. **Intervention:** Assess client's readiness and motivation for learning as needed (Doenges, Kenty, & Moorhouse, 1988). **Rationale:** Client needs time to transition from "taking in" phase to "taking hold" phase in which receptiveness to new information improves (Doenges, Kenty, & Moorhouse, 1988). 2. **Intervention:** Provide information about the natural hormonal changes that follow delivery and how they affect the maternal body throughout

	the postpartum period (Behnke, 2003). **Rationale:** Mothers can anticipate the physical recovery and better understand the changes that are taking place (Behnke, 2003). **3. Intervention:** Educate the client about the normal progression of lochial discharge on the first postpartum day (Doenges, Kenty, & Moorhouse, 1988). **Rationale:** Client will anticipate changes in color, duration, and amount of vaginal discharge and will be able to notify personnel if abnormal findings occur (Doenges, Kenty, & Moorhouse, 1988). **4. Intervention:** Educate the client about the difference between postpartum blues and postpartum depression including incidence, duration, and signs and symptoms before end of hospital stay (Behnke, 2003). **Rationale:** Anticipating such changes reduces the stress associated with this transition period of learning new roles and taking on new responsibilities (Doenges, Kenty, & Moorhouse, 1988).
Evaluation of Goal:	The client provides appropriate self-care, set asides time away from visitors for ongoing education, and vocalizes confidence with her postpartal changes before end of hospital stay.

Nutritional Nursing Diagnosis

Infant Nursing Diagnosis:	Ineffective breastfeeding related to poor suck as evident by no latch obtained and supplemental feeding with use of breast pump.
Short term Goal:	The infant will achieve a good latch with next breastfeeding as evident by attaching far back onto the areola.
Long term Goal:	The infant will express a good suck by the end of hospital stay as evident by audible, rhythmic sucking and swallowing.
Interventions:	**1. Intervention:** Change holding positions of neonate as needed (Mulder, 2006). **Rationale:** Positioning reduces the traction on the mother's nipples and helps keep the nipple and areola in the infant's mouth (Mulder, 2006). **2. Intervention:** Teach the mother to use her nipple to stroke downward in a vertical motion across the middle of the baby's lower lip to trigger the rooting reflex when breastfeeding (Davidson, Ladewig, & London, 2008). **Rationale:** This allows the mother to facilitate her baby's reflexes to help it draw in an adequate mouthful of breast tissue (Mulder, 2006). **3. Intervention:** Assist the neonate to achieve a deep latch far back onto the areola and not onto the nipple as needed (Davidson, Ladewig, & London, 2008). **Rationale:** Attaching to the nipple, the mother will have sore nipples and pain inhibiting the let-down reflex and milk ejection (Davidson, Ladewig, & London, 2008).

	4. **Intervention:** Educate on aligning the infant to the mother with the baby's nose facing the mother's nipple as needed (Davidson, Ladewig, & London, 2008). **Rationale:** Proper alignment optimizes the infant's oral-motor function (Davidson, Ladewig, & London, 2008).
Evaluation of Goal:	Most recent observation of breastfeeding concludes that the infant latched on after 2 attempts and achieved audible, rhythmic sucking with frequent bursts for 10 minutes on the right breast and 5 minutes on the left breast requiring no supplemental feeding. Infant responded by falling asleep shortly after.

Conclusion

C.B. initially experienced some trouble throughout her labor and delivery. Nevertheless, she has shown success in mothering her first newborn and no further need for ongoing care. Throughout her hospital stay C.B. had obstacles such as testing positive for GBS, her fetus experiencing variable decelerations, and needing forceps delivery, all of which made her a desirable choice for evaluating on. With her forceps delivery and 3rd degree lacerations C.B. experienced a large amount of blood loss. Unsure of her amount of blood loss, would C.B. have had a stable condition without receiving Cytotec immediately after delivery, or is this a physician protocol to automatically prescribe oxytocics to prevent postpartum hemorrhage? In considering this aspect, monitoring signs and symptoms of hypovolemic shock would have been implemented if she was at risk for postpartum hemorrhage. We discussed the reasoning to why C.B. would have had an increased blood loss, but did not discuss the consequences that would have occurred had she been hemorrhaging. Even though C.B. did have complications throughout delivery, precautions were properly taken, and now she is taking home her healthy newborn.

References

Behnke, A. (2003). The physical and emotional effects of postpartum hormone levels. *International Journal of Childbirth Education, 18(2),* Retrieved from http://web.ebscohost.com.proxy.ohiolink.edu:9099/ehost/pdfviewer/pdfviewer?vid=8&hid=107&sid=3cb27d0c-0148-4dfd-9412-1931464ae220%40sessionmgr115

Bick, D. (2009). Postpartum management of the perineum. *British Journal of Midwifery, 17(9),* Retrieved from http://web.ebscohost.com.proxy.ohiolink.edu:9099/ehost/detail?vid=12&hid=104&sid=ca7b99ff-c19a-4bf8-bd31-533f7e8e493e%40sessionmgr111&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#db=rzh&AN=2010414139

Davidson, M.R., London, M.L., & Ladewig, P.A. (2008). *Olds' maternal-newborn nursing & women's health across the lifespan*. Upper Saddle River, NJ: Pearson Education Incorporation.

Deglin, J.H., & Vallerand, A.H. (2008). *Davis' drug guide for nurses.* Philadelphia: F.A. Davis.

Doenges, M.E., Kenty, J.R., & Moorhouse, M.R. (1988). *Maternal/Newborn Care Plans.* Philadelphia, PA: F.A. Davis Company.

Hunter, L., Rychnovsky, J., & Yount, S. (2009). A selective review of maternal sleep characteristics in the postpartum period. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing, 38(1),* Retrieved from http://web.ebscohost.com.proxy.ohiolink.edu:9099/ehost/pdfviewer/pdfviewer?vid=12&hid=107&sid=3cb27d0c-0148-4dfd-9412-1931464ae220%40sessionmgr115

Mulder, P.J. (2006). A concept analysis of effective breastfeeding. *JOGNN: Journal of Obstetric, Gynecologic & Neonatal Nursing, 35(3),* Retrieved from http://web.ebscohost.com.

proxy.ohiolink.edu:9099/ehost/detail?vid=14&hid=104&sid=ca7b99ff-c19a-4bf8-bd31-533f7e8e493e%40sessionmgr111&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d

Pagana, K.D., & Pagana, T.J. (2006). *Mosby's manual of diagnostic and laboratory tests*. Mosby Elsvier Incorporation.