N311 Care Plan # 3

Lakeview College of Nursing

Name: Destiny Bell

Demographics (5 points)

Date of Admission 10-26-20	**Patient Initials** Z. R	**Age** 14 years old	**Gender** Male
Race/Ethnicity Caucasian (White)	**Occupation** Unemployed (Child)	**Marital Status** Single	**Allergies** No known allergies
Code Status FULL CODE	**Height** 6'1.5	**Weight** 154 LBS	

Medical History (5 Points)

Past Medical History:

- Anemia; Mother states that he was previously anemic and has since outgrown and that his primary care physician no longer has him taking iron pills but rather a Flintstone daily vitamin.

Past Surgical History:

- Laparoscopic Appendectomy (10/26/20)
- No other surgeries

Family History:

- Maternal grandmother: Breast Cancer
- Fraternal grandmother: Breast Cancer

Social History (tobacco/alcohol/drugs):

- Never smoked cigarettes or used tobacco products
- No alcohol usage
- No recreational drug usage

Admission Assessment

Chief Complaint (2 points): Abdominal Pain

History of present Illness (10 points): Z. R is a 14-year-old male who presents to the hospital with the complaint of abdominal pain the past three days. The pain is located in his right lower quadrant. The pain is constant but has become increasingly worse the past 3 days fluctuating in the intensity of pain it is causing. Pt has not sought previous treatment for his abdominal pain and no relieving factors were noted by the patient.

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Appendicitis

Secondary Diagnosis (if applicable): N/A

Pathophysiology of the Disease, APA format (20 points): Appendicitis is the inflammation of the vermiform appendix, which is the pouch-like area that protrudes from the cecum, where the large intestine meets the small intestine (Capriotti 2020). Appendicitis is one of the most common causes of problems in the abdomen, if it is left untreated peritonitis can occur, as we can relate back to our patient who had palpable peritonitis in his abdomen (Capriotti 2020). Appendicitis usually develops in between childhood and young adulthood, but may occur at any age, with the incidence in the United States being 10 cases per 100,000 population per year (Capriotti 2020). The median age of patients getting an appendectomy is 22 years old (Capriotti 2020). Perforation of the appendix often occurs mainly in elderly patients as well as adolescents (Capriotti 2020). Appendicitis has a low mortality rate of 0.2 % to 0.8 % which is often caused by complications of the disease rather than the surgery (Capriotti 2020). The mortality rate in children ranges from 0.1 % to 1 % and in patients over the age of 70, the mortality rate rises to nearly 20 percent due to the delay in the diagnosis of the disease (Capriotti 2020). It is

hypothesized that appendicitis is caused by a nearby blockage, normally of the patients stools or of calcified feces (Capriotti 2020). Blockage of the appendix often occurs when the neighboring mesenteric lymph nodes become inflamed in response to a bacterial or viral infection and compress the appendix (Capriotti 2020). The incidence of appendicitis is lower in cultures that consume diets that are high in dietary fibers, dietary fibers are thought to decrease the viscosity of feces, decrease bowel transit time and discourage the formation of fecaliths, also known as calcified feces (Capriotti 2020). A patient having a family history of appendicitis puts them at a greater risk of getting the disease and it has been found that having cystic fibrosis has put a child at a higher risk of getting this disease (Capriotti 2020).

There are two major initiating events that lead to appendicitis; the narrowing of the appendix lumen due to an obstruction resulting in ischemia or the development of a medium for bacterial growth as the normal secretions remain trapped behind the lumen as a result of the narrowing (Capriotti 2020). As a result of these two events, the protective mucosa layer of the appendix becomes compromised as luminal bacteria multiply and attack the appendix wall causing inflammation, the inflammation in combination with tissue ischemia leads to necrosis and perforation of the appendix (Capriotti 2020). An individual with appendicitis usually complains of vague pain in the abdomen that starts in the epigastric region and as the pain and severity increases over time the pain becomes localized in the Right lower quadrant, which is how my patient presented to the hospital complaining of increasing pain in his RLQ over the past 3 days (Capriotti 2020). As the pain increases an individual with appendicitis with often guard their RLQ by remaining immobile or drawing the legs up in a fetal position to relieve some of the tension (Capriotti 2020). Some common signs and symptoms of appendicitis include

abdominal pain usually accompanied by a low-grade fever or abdominal distention (Capriotti 2020).

The diagnosis of appendicitis is based on a combination of physical examination findings, a x-ray of the abdomen, a CT scan, abdominal ultrasound, elevated C reactive protein and a elevated WBC count (Capriotti 2020). While a CT scan is the most accurate mode of imaging to diagnose appendicitis, the accompanying radiation is concerning (Shogilev et al 2014). An ultrasound may help diagnose appendicitis without the need of a CT scan in certain cases (Shogilev et al. 2014). An abdominal x-ray is usually not that helpful unless a calcium stone is present in the appendix. A urinalysis is necessary to rule out a kidney stone or pyelonephritis, which can present the same symptoms as appendicitis (Capriotti 2020). Early treatment options include the use of antibiotics that effective against gram-negative bacteria and should be initiated preoperatively and administered up to 48 hours postoperatively, laxatives and pain medications should be avoided before the diagnosis of appendicitis as they can mask diagnostic signs of the disease (Capriotti 2020). Continuous monitoring for peritonitis and IV therapy is essential to restore and maintain fluid or electrolyte balance (Capriotti 2020).

Pathophysiology References (2) (APA):

Capriotti, Theresa M. "Davis Advantage for Pathophysiology: Introductory Concepts and Clinical Perspectives" 2nd ed. (2020). *F.A Davis Company.*

Shogilev DJ, Duus N, Odom SR, Shapiro NI. Diagnosing appendicitis: evidence-based review of the diagnostic approach in 2014. *West J Emerg Med*. 2014;15(7):859-871. doi:10.5811/westjem.2014.9.21568

Laboratory Data (20 points)

If laboratory data is unavailable, values will be assigned by the clinical instructor

CBC Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.40 - 5.80	N/A	4.50	
Hgb	13.0 - 16.5	N/A	13.5	
Hct	38.0 - 50.0	N/A	39.5	
Platelets	140 - 440	N/A	295	
WBC	4.0 - 12.0	N/A	10.40	
Neutrophils	40.0 - 68.0	N/A	87.0	Infection
Lymphocytes	19.0 - 49.0	N/A	8.6	The patient's immune system is trying to fight off infection.
Monocytes	3.0 - 13.0	N/A	0.40	
Eosinophils	0.0 – 8.0	N/A	0	
Bands	N/A	N/A	N/A	

Chemistry Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	133 - 144	N/A	139	
K+	3.5 – 5.1	N/A	4.4	
Cl-	98 - 107	N/A	103	
CO2	21 - 31	N/A	24	
Glucose	70 - 99	N/A	169	Patients is consuming a regular diet that may be high in sugars and his body hasn't fully broken down the sugars yet

BUN	7 - 25	N/A	13	
Creatinine	0.50 – 1.20	N/A	0.76	
Albumin	3.5 – 5.7	N/A	N/A	
Calcium	8.6 – 1.20	N/A	N/A	
Mag	1.6 – 2.6	N/A	N/A	
Phosphate	N/A	N/A	N/A	
Bilirubin	0.2 – 0.8	N/A	N/A	
Alk Phos	34 – 104	N/A	N/A	

Urinalysis Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

*** NO URINALYIS LABS WERE OBTAINED ***

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity		N/A	N/A	
pH	5.0 – 9.0	N/A	N/A	
Specific Gravity	1.003 – 1.030	N/A	N/A	
Glucose	Negative	N/A	N/A	
Protein	Negative	N/A	N/A	
Ketones	Negative	N/A	N/A	
WBC	Negative, 0-5	N/A	N/A	
RBC	Negative, 0-2	N/A	N/A	
Leukoesterase	Negative	N/A	N/A	

Cultures Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.

*** NO CULTURES COLLECTED ***

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	N/A	N/A	N/A	
Blood Culture	N/A	N/A	N/A	
Sputum Culture	N/A	N/A	N/A	
Stool Culture	N/A	N/A	N/A	

Lab Correlations Reference (APA):

Pagana, K. D., Pagana, T. J., & Pagana, T. N. (2019). Mosby's diagnostic and laboratory test reference. St. Louis, MO: Elsevier

Diagnostic Imaging

All Other Diagnostic Tests (10 points):

- CT Scan of Abdomen and Pelvis with contrast;
  - Findings; Enlarged liver. Stomach, spleen, pancreas, gallbladder, and bilateral adrenal glands are unremarkable. Kidneys show normal uptake of the contrast bilaterally. Thickening of the cecal apex is identified. Thickened proximal appendix is also observed. Inflammation is consistent with acute appendicitis. No pneumoperitoneum Hepatomegaly.

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/Generic	Morphine Injection	Hydrocodone-acetaminophen (NORCO)	Dexamethasone	Docusate Sodium (Colase)	Cefoxitin Sodium (Mefoxin)
Dose	1 to 4 mg	325MG 1 TO 2 Tablets	4mg	100mg	2g in sodium chlorides 0.9% 100ml ivpb **2g**
Frequency	Every Hour PRN	Q4H PRN	Once PRN	Daily	2g Q8H
Route	Intravenous	Oral	Intravenous	Oral	intravenous
Classification	Opioid	Opioid	Anti-inflammatory	Laxative	Antibiotic
Mechanism of Action	Binds with and activates opioid receptors in the brain and spinal cord to produce analgesia and euphoria	Binds to and activates opioid receptors at sites in the periaqueductal and periventricular grey matter, the ventromedial medulla and the spinal cord to produce pain relief	Binds to intracellular glucocorticoid receptors and suppresses inflammatory responses by; Inhibiting monocyte and neutrophil accumulation at inflammation site and suppressing bactericidal and phagocytic action. Stabilizing lysosomal membranes. Suppressing antigen response of helper t cells and macrophages. Inhibiting synthesis of	Acts as a surfactant that softens stools by decreasing surface tension between oil and water in feces allowing for a softer fecal mass	Interferes with bacterial cell wall synthesis by inhibiting the final step in the cross linking of peptidoglycan strands. Peptidoglycan makes cell membranes rigid and protective, without it cells rupture and die.

			inflammatory response mediators such as cytokines, interleukins and prostaglandins		
Reason Client Taking	To relieve pain	To manage severe pain	To reduce inflammation	To loosen stools	To treat infection
Contraindications (2)	Arrythmias, Hypersensitivity to montelukast sodium or any of its components	Children under the age of 18 for the use with cold and cough medications And acute bronchial asthma	Idiopathic thrombocytopenic purpura Systemic fungal infections	Nausea Vomiting Fecal impaction	Hypersensitivity to cefoxitin, other cephalosporins, or their components
Side Effects/Adverse Reactions (2)	CNS; drowsiness CV; bradycardia	EENT; dry mouth GI: Abdominal discomfort	CV; Arrythmias Bradycardia EENT; Blurred vision	CNS; Dizziness CV; Palpations	CNS; Seizures CV; Edema RESP; Dyspnea

Medications Reference (APA):

Institute for Safe Medication Practices: ISMP Medication Safety Alert. http://www.ismp.org/.

Jones & Bartlett Learning. (2019). 2019 Nurse's Drug Handbook. Burlington, MA

Assessment

Physical Exam (18 points)

GENERAL: **Alertness:** Alert **Orientation:** Orientated **Distress:** No apparent distress **Overall appearance:** Exhausted/Tired	Patient is alert and orientated x3 No signs of apparent distress Patient is very **e**xhausted
INTEGUMENTARY: **Skin color:** Pink **Character:** Warm and dry **Temperature:** **Turgor:** 2+ **Rashes:** none **Bruises:** none	Patients skin is pink, normal temperature (warm) and dry. No rashes or bruises noted. Turgor is normal at 2+ No edema, cyanosis or clubbing visualized Pts incision is still intact, and no drainage visualized.

Wounds: none **Braden Score**: 23 **Drains present: Y☐ N ☒** **Type:**	
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Tympanic membrane visualized (pearly gray) Conjunctiva clear No sclera icterus or pallor Perla and EOMI is normal Visual aid; glasses on No deviated septum visualized Oral cavity is moist and clear.
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses**: 2+ bilaterally **Capillary refill: 2+** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	Patient is in a normal rhythm s1 and s2 are present. No murmurs or gallops noted. Patient has no complaints of chest pain, no orthopnea or PVD. No ceratoid bruit noted. Radial pulses 2+ bilaterally
RESPIRATORY: **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	Patients lungs are clear bilaterally. No wheezes, Ronchi, rales or crackles heard.
GASTROINTESTINAL: **Diet at home:** Regular (General) **Current Diet:** Regular (General) **Height**: 6'1.5 **Weight:** 154 LBS **Auscultation Bowel sounds:** **Last BM:** 10-25-2020 **Palpation: Pain, Mass etc.:** tender with localized peritonitis **Inspection:** **Distention:** non- distended **Incisions**: 3 laparoscopic incisions on lower abdomen **Scars: none** **Drains: none** **Wounds: none** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:**	Patient is currently not experiencing any nausea, vomiting or diarrhea. Bowel sounds are audible and active throughout all quadrants. Abdomen is soft and tender with no distention. Patient has localized peritonitis in his right lower quadrant accompanied by voluntary guarding. Patient has 3 laparoscopic incisions on his abdomen, no redness noted

Feeding tubes/PEG tube Y ☐ N ☒ **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** unmeasurable amount **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** **Catheter: Y ☐ N ☒** **Type:** **Size:**	Urine is yellow and clear Unmeasurable amount obtained No dysuria or hematuria No increase in urgency or frequency No foul odors
MUSCULOSKELETAL: **Neurovascular status:** Cognitive **ROM:** able to perform on own **Supportive devices:** none **Strength:** **ADL Assistance: Y☐ N ☒** **Fall Risk: Y ☐ N☒** **Fall Score: 1** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk**☐	Patient is cognitive and alert. He is able to perform all tasks independently just may need help setting supplies up. No lift equipment is needed. Patient has normal bilateral strength in his hands and lower extremities.
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☒ N☐** **Strength Equal: Y ☒ N ☐ if no -** **Legs ☐ Arms ☐ Both ☐** **Orientation:** orientated **Mental Status:** cognitive, no delays **Speech:** clear **Sensory:** normal **LOC:**	Patient is alert and orientated but appears very exhausted. Perla normal upon inspection Strength equal in bilateral extremities No neurological deficits
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Patient is calm, cooperative and accepting. Patient is still an adolescent but has no cognitive delays. Patient and his mother state that they do not currently practice a religion. Patient lives at home with his mother and father, no siblings were mentioned.

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0802	61 bpm Left radial pulse	103/57 bpm Left arm	18	98.3 oral	96% Room air

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0900	Numeric	none	Denies pain	none	Continue to monitor for any changes, administer pain medications if needed as prescribed.

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
1200 mL IV **100% breakfast**	**Unmeasurable amount of urine** **Blood; 20mL**

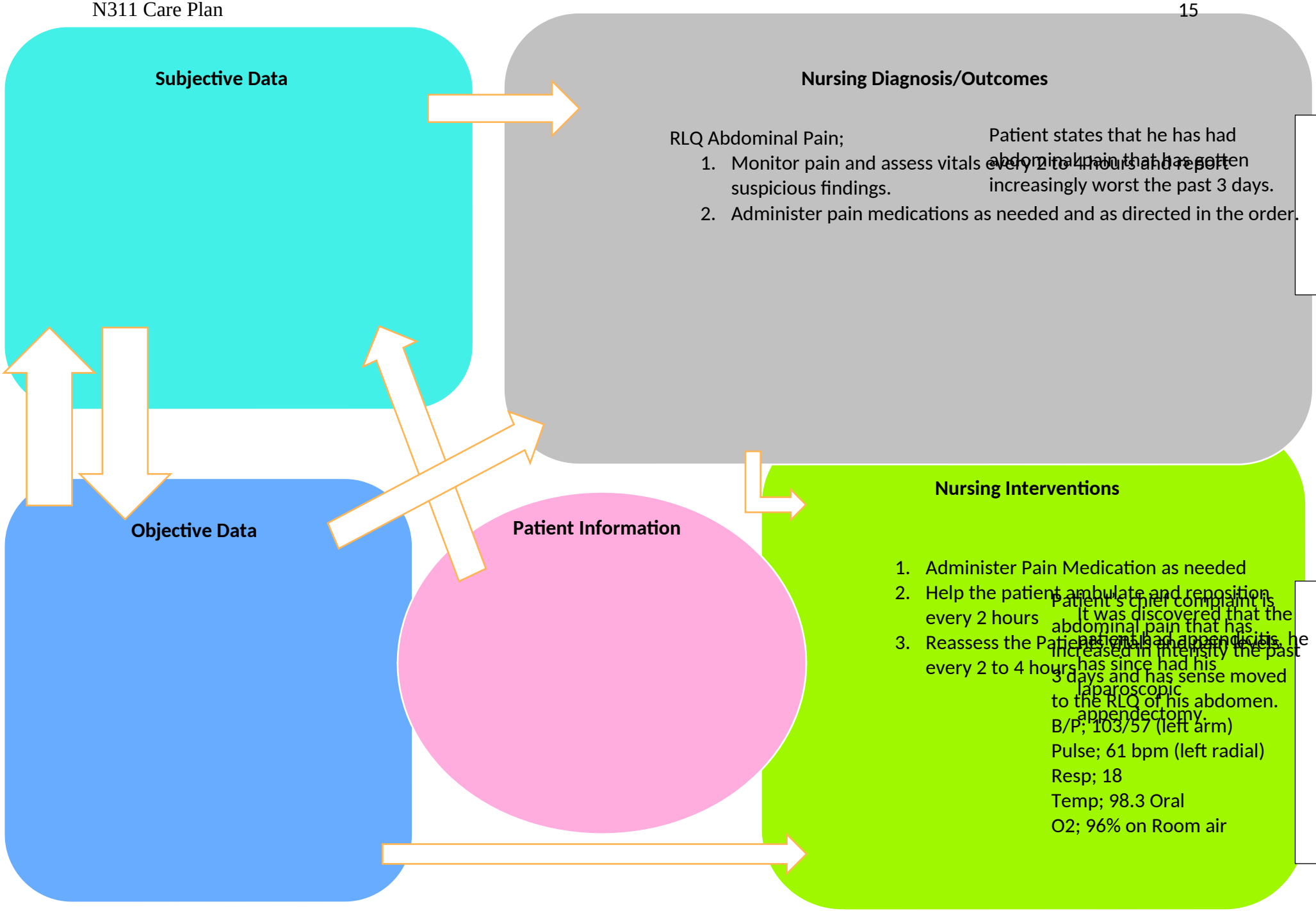
Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as	Rational • Explain why the nursing diagnosis was	Intervention (2 per dx)	Evaluation • How did the patient/family respond to the nurse's actions?

evidenced by" components	chosen		• Client response, status of goals and outcomes, modifications to plan.
1. RLQ Abdominal pain	Patient has appendicitis and has voluntary guarding of his abdomen. He states the pain has gotten worse the past 3 days	**1.** Monitor patients pain levels and assess vitals every 2 to 4 hours. Report significant findings 2. administer pain medications	The patients pain levels decreased, and he is currently denying any pain, we will still continue to monitor and assess pain level and vital signs The patients pain level has been at a zero since arriving on the floor, his goal of the shift to have his pain level maintain and no pain was met throughout our shift.
2. immobility related to post-operative surgery	Patient had a laparoscopic appendectomy and is on strong pain medications, patient has been sleeping most of the shift with his mother at his bedside	1. reposition the patient every 2 hours 2. Encourage the patient to get out of bed and walk as tolerated even if it's a short distance	Patient was assisted in reposition every 2 hours and his vitals were reassessed after repositioning The patient was too exhausted and kepts dozing ** Expression is faulty **off, so I felt that it was unsafe for him to be up an ambulating in the hallways but instructed the patient and his mother that if he needs anything we are here to help

Other References (APA):

Concept Map (20 Points):


Subjective Data
Nursing Diagnosis/Outcomes
RLQ Abdominal Pain;
1. Monitor pain and assess vitals every 2 to 4 hours and report suspicious findings.
2. Administer pain medications as needed and as directed in the order.
Patient states that he has had abdominal pain that has gotten increasingly worst the past 3 days.
Objective Data
Patient Information
Nursing Interventions
1. Administer Pain Medication as needed
2. Help the patient ambulate and reposition every 2 hours
3. Reassess the Patient's pain level every 2 to 4 hours
Patient's chief complaint is abdominal pain that has increased in intensity the past 3 days and has sense moved to the RLQ of his abdomen.
B/P; 103/57 (left arm)
Pulse; 61 bpm (left radial)
Resp; 18
Temp; 98.3 Oral
O2; 96% on Room air
It was discovered that the patient had appendicitis, he has since had his laparoscopic appendectomy.