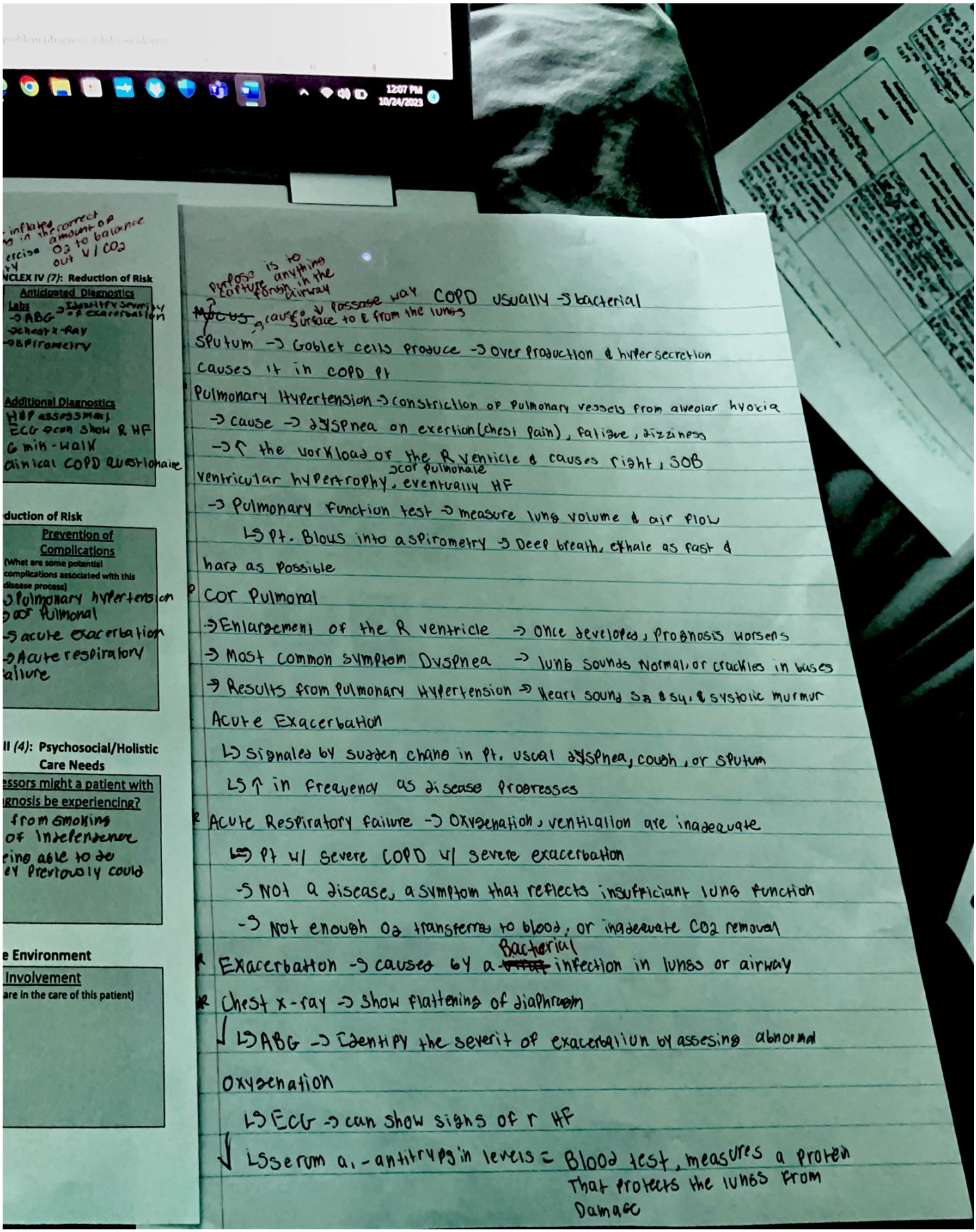

- inflated in the correct amount of exercise O2 to balance out V/CO2

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics

Labs → Identify severity of exacerbation
- ABG
- chest x-ray
- spirometry

Additional Diagnostics
- H&P assessment
- ECG can show R HF
- 6 min-walk
- clinical COPD questionaire

duction of Risk

Prevention of Complications

(What are some potential complications associated with this disease process)
- Pulmonary hypertension
- cor Pulmonal
- acute exacerbation
- Acute respiratory failure

II (4): Psychosocial/Holistic Care Needs

essors might a patient with gnosis be experiencing?
- from smoking
- of independence
- being able to do ey previously could

e Environment

Involvement

are in the care of this patient)

purpose is to capture anything from in the airway

~~Mucus~~ → causes ↓ passage way COPD usually → bacterial

surface to & from the lungs

Sputum → Goblet cells produce → over production & hypersecretion causes it in COPD pt

Pulmonary Hypertension → constriction of pulmonary vessels from alveolar hypoxia
- → cause → dyspnea on exertion (chest pain), fatigue, dizziness
- → ↑ the workload of the R ventricle & causes right, SOB ventricular hypertrophy, eventually HF (cor pulmonale)
- → Pulmonary function test → measure lung volume & air flow
  - LS Pt. blows into a spirometry → Deep breath, exhale as fast & hard as possible

P Cor Pulmonal
- → Enlargement of the R ventricle → once developed, prognosis worsens
- → Most common symptom Dyspnea → lung sounds Normal, or crackles in bases
- → Results from Pulmonary Hypertension → Heart sound S3 & S4, & systolic murmur

Acute Exacerbation
- LS Signaled by sudden chang in Pt. usual dyspnea, cough, or sputum
- LS ↑ in Frequency as disease progresses

R Acute Respiratory failure → Oxygenation, ventilation are inadequate
- LS Pt w/ severe COPD w/ severe exacerbation
- → Not a disease, a symptom that reflects insufficiant lung function
- → Not enough O2 transferred to blood, or inadequate CO2 removal

R Exacerbation → caused by a ~~virus~~ Bacterial infection in lungs or airway

R Chest x-ray → show flattening of diaphragm

↓ LS ABG → Identify the severit of exacerbation by assesing abnormal Oxygenation

LS ECG → can show signs of r HF

↓ LS serum α_1-antitrypsin levels = Blood test, measures a protein That protects the lungs from Damage

Student Name: Destiny Klinger
Medical Diagnosis/Disease: COPD Exacerbation (bronchitis)

Inability to exhale air main characteristic of COPD → Alveoli over inflated & not taking in the correct amount of O2 to balance out w/ CO_2
→ Pt. become dyspneic w/ exercise capacity

NCLEX IV *(8)*: Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures
- Respiratory tract consist of Mouth/nose (pull air into body), Pharynx (delivers care to trachea), Trachea (connects throat to lungs), Bronchial tubes (bottom of windpipe connect each lung), Bronchioles (small branch bronchial tube lead to alveoli), Alveoli (where gas exchange happens), capillaries (blood vessels)
- Diaphragm contract → inhale, relax = exhale
- Pleura - separate lungs from chest wall (neg. pressure)

Pathophysiology of Disease
- The loss of elastic recoil & airflow obstruction, from mucus hypersecretion mucosal edema, & bronchospasms
- Inflammation caused by the oxidants made by cigarette smoke & other inhaled particles
- Oxidants effect the lungs as they inactivate antiproteases (prevent natural destruction of lungs)
- The main site of airflow limitation is in sm. airways
  - As peripheral airway becomes obstructed air is progressively trapped during expiration
- As air is trapped, ~~t~~chest hyper-expands & becomes barrel shaped bcuz resp. muscles can't effectively function
- Functional residual capacity ↑'s
  - ↑ residual air & ↓ elastic recoil, makes passive expiration of air difficult

NCLEX IV *(7)*: Reduction of Risk

Anticipated Diagnostics
Labs → Identify severity of exacerbation
- → ABG
- → chest x-ray
- → spirometry

Additional Diagnostics
H&P assessment
ECG → can show R HF
6 min - walk
clinical COPD questionaire

NCLEX II *(3)*: Health Promotion and Maintenance

Contributing Risk Factors
- → cigarette smoking
- → Infection
- → Asthma
- → Air pollution
- → occupational chemicals & Dusts
- → Aging
- → Genetics
- → Alpha-1 Antitrypsin Deficiency = Autosomal recessive disorder

Signs and Symptoms
- chronic intermittent cough
- dyspnea progressive (exercise)
- report chest heaviness
  - ↳ Not able to take deep breath
- chest tightness
- fatigue, weight loss, anorexia
- ↓ breath sounds, wheeze in all lung fields
- → sputum color & amount not normal

NCLEX IV *(7)*: Reduction of Risk

Possible Therapeutic Procedures
Non-surgical O2 therapy
Nutrition therapy → extra protein & calories

Surgical lung volume reduction → Reduce lung size, remove diseased lung tiss.
Bronchoscopic lung volume ~~re~~ reduction
Allow air to leave lung

Prevention of Complications
(What are some potential complications associated with this disease process)
- → Pulmonary hypertension
- → cor pulmonal
- → acute exacerbation
- → Acute respiratory failure

NCLEX IV *(6)*: Pharmacological and Parenteral Therapies

Anticipated Medication Management
- → Bronchodilators
- → diuretics
- → Antibiotics
- → oral systemic corticosteroids

NCLEX IV *(5)*: Basic Care and Comfort

Non-Pharmacologic Care Measures
- → Place Pt in high fowlers for optimal resp. function
- → Promote adequate rest 90 min
- → Adequate nutrition + small frequent meals
- → administer O2 therapy

NCLEX III *(4)*: Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?
- Guilt from smoking
- → loss of independence
- → Not being able to do what they previously could

Client/Family Education

List 3 potential teaching topics/areas
- Deep breathing & airway clearance exercise
- Energy conservation techniques
- Teach about meds & the set schedule the Pt. will most likely follow

NCLEX I *(1)*: Safe and Effective Care Environment

Multidisciplinary Team Involvement
(Which other disciplines do you expect to share in the care of this patient)
- → RT
- → Dietitian
- → Physical therapy
- → Social worker