

# Pulmonary Embolism Nursing Care Plan

<b>Patient name:</b> James Harrison	
<b>Age:</b> 54	<b>Gender:</b> Male
<b>Medical history</b>	
History of deep vein thrombosis (DVT), hypertension, type 2 diabetes mellitus Recent knee surgery (4 weeks ago) Smoker (25-pack-year history)	
<b>Assessment</b>	
Subjective	Objective
Reports sudden onset of shortness of breath Complains of sharp chest pain, especially during deep breaths Feels lightheaded and anxious Says he noticed his right calf was swollen two days before	Vital signs: BP 90/60 mmHg, HR 110 bpm, RR 28 breaths/min, Temp 98.6°F SpO <sub>2</sub> : 88% on room air Swollen and tender right calf Auscultation reveals decreased breath sounds on the right lung ECG shows sinus tachycardia Lab results: D-dimer elevated CT angiogram confirms pulmonary embolism
<b>Nursing diagnosis</b>	
Impaired gas exchange related to pulmonary perfusion deficits, activity intolerance related to reduced oxygen supply, risk for bleeding related to anticoagulant therapy	
<b>Goals and outcomes</b>	
Long-term	Short-term
Patient will maintain stable oxygen levels (SpO <sub>2</sub> ≥ 92%) within three weeks.	Patient will maintain SpO <sub>2</sub> ≥ 90% within 24 hours.
Patient will demonstrate understanding of anticoagulant therapy and its importance in preventing recurrence.	Patient will verbalize relief from chest pain within 48 hours.
	Patient will ambulate with assistance for at least 10 minutes within 72 hours.

### Nursing interventions

Monitor respiratory status and oxygen saturation every 2-4 hours. Administer oxygen therapy as prescribed to maintain  $\text{SpO}_2 \geq 92\%$ . Administer anticoagulants such as heparin or warfarin as prescribed. Assess for signs of bleeding (e.g., bruising, bleeding gums) due to anticoagulant therapy. Encourage the patient to perform leg exercises or ambulate as soon as possible to prevent further clots. Position the patient in Fowler's or high-Fowler's position to promote lung expansion. Educate the patient on the importance of smoking cessation and lifestyle changes. Provide emotional support and reassure the patient to reduce anxiety. Collaborate with physical therapy for early mobilization. Evaluate patient's understanding of discharge instructions and anticoagulant therapy.

### Rationale

Monitoring oxygen levels allows for early detection of hypoxemia. Supplemental oxygen helps increase oxygen availability in the bloodstream. Anticoagulants prevent clot growth and reduce the risk of additional emboli. Early detection of bleeding ensures timely intervention to prevent complications. Movement prevents venous stasis and reduces the risk of further thrombus formation. Proper positioning facilitates breathing and improves oxygenation. Smoking cessation reduces cardiovascular risks, including DVT and PE. Reducing anxiety prevents hyperventilation and improves respiratory efficiency. Collaboration with physical therapy ensures safe mobilization, promoting recovery. Educating the patient empowers them to manage their condition post-discharge effectively.

### Evaluation

$\text{SpO}_2$  levels remained  $\geq 92\%$  on room air throughout hospitalization. Patient reported chest pain reduced to 2/10 within 24 hours. Patient ambulated with assistance for 15 minutes on day 2 of hospitalization. No signs of bleeding observed during hospital stay. Patient demonstrated proper understanding of anticoagulant therapy before discharge.

### Additional notes

Follow-up appointment with cardiology scheduled in 1 week. Patient referred to a smoking cessation program. Discharge instructions provided, including signs of bleeding and when to seek medical attention.

### Nurse's information

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