

Reducing PNA Readmission: Bedside Education

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INTRODUCTION

- Pneumonia is responsible for 1 million to 1.4 million hospitalizations every year among adults
- It is the most common reason for adult hospital stays, excluding childbirth
- A typical hospital stay lasts 4.2 days for standard care, and 7.2 days if ICU care is needed
- Between 15% and 25% of patients end up back in the hospital within 30 days of going home
- The healthcare system spends over \$14 billion annually on initial pneumonia related hospital stays, and an additional \$10 billion related to readmissions
- Patients with heart disease, COPD, diabetes, or kidney disease face a much higher risk of returning to the hospital
- Patients using Medicare or Medicaid show significantly higher rates of readmission

PURPOSE

To develop and implement a standardized, health-literacy friendly Pneumonia Education Flipbook for use at the bedside and beyond

OBJECTIVE

Primary Objective: Improve patient understanding of pneumonia diagnosis, treatment, and recovery using a structured bedside flipbook.

Research Question: Does a standardized pneumonia education tool improve patient comprehension and confidence in self-care?

Secondary Objectives:

- Increase antibiotic adherence
- Improve follow-up appointment completion
- Reduce preventable readmissions within 30 days

METHODOLOGY

Design: Educational quality-improvement project

Theoretical Design:

Teach-Back Method - Ensures patient understanding through demonstration and repetition

Health Literacy Universal Precautions - Assumes all patients benefit from clear, simplified communication

Setting: Danbury Hospital inpatient units

Population: Adult patients admitted with pneumonia

Intervention: Bedside teaching using the Pneumonia Education Flipbook, covering:

- What is pneumonia
- Symptoms
- Treatment and antibiotic rules
- Prevention (vaccines, hand hygiene, infection control)
- Discharge criteria
- Recovery timeline
- Breathing exercises and airway clearance

NEXT STEPS

- Implement flipbook education across all medical-surgical units
- Train nursing staff, respiratory therapists and other medical staff in standardized delivery
- Collect patient comprehension and satisfaction data using short pre-post questionnaire
- Analyze early outcomes (adherence, follow-up, readmissions)
- Revise flipbook based on patient and staff feedback
- Prepare findings for presentation to hospital QI committee

WHAT IS PNEUMONIA?

An infection in one or both the lungs

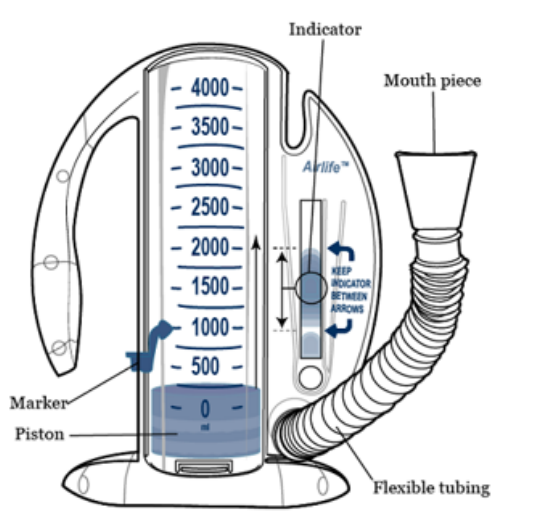
What happens?

- Tiny air sacs in the lungs fill with fluid or pus
- Makes breathing harder
- Your body gets less oxygen

BREATHING: INCENTIVE SPIROMETER

A breathing device that helps keep the lungs healthy by:

- Keeping Your Lungs Open**
Long periods of bed rest and inactivity results in shallow breathing causing parts of the lung to be underinflated
- Preventing Lung Infection**
Deep breaths help move mucus out of the lungs, so it does not build up and cause infection
- Improving Oxygen Flow**
When the lungs are fully inflated your body gets more oxygen
- Shortening Recovery**
Using the incentive spirometer regularly helps keep the lungs strong while you recover and heal



SIDE EFFECTS OF ANTIBIOTICS

SIDE EFFECT	WHAT TO DO
Upset Stomach/Nausea	- Take with food or a full glass of water - Call your doctor if vomiting prevents you from keeping the medicine down
Diarrhea	- Common with antibiotics - Drink extra fluids - Call your doctor if it is severe, bloody, or lasts more than 3 days
Rash or itching	- Stop taking and call your doctor immediately - Could be an allergic reaction
Sun Sensitivity	- Some antibiotics make skin burn faster - Wear sunscreen and protective clothing outdoors
Yeast Infection	- Some people, especially women, develop a yeast infection - Ask your doctor or pharmacist about prevention
Severe Allergic Reaction	- Hives, swelling, difficulty breathing = EMERGENCY - CALL 911

DISCHARGE: ARE YOU READY TO GO HOME?

	Discharge Criteria	What It Means
1	Vital signs stable for 24 hours	Temperature, blood pressure, heart rate, and breathing rate are all in a safe range without IV medications
2	Oxygen level is safe without supplemental O2	Oxygen level (SpO2) stays at or above 90% on room air, or you can manage with home oxygen if prescribed
3	Able to take oral antibiotics and fluids	You can swallow pills and drink fluids without vomiting
4	Mental status is at baseline	You are thinking clearly or same as before getting sick
5	Safe discharge plan in place	You have a place to go, someone to help you, a pharmacy, and a follow-up appointment scheduled

REFERENCES



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