

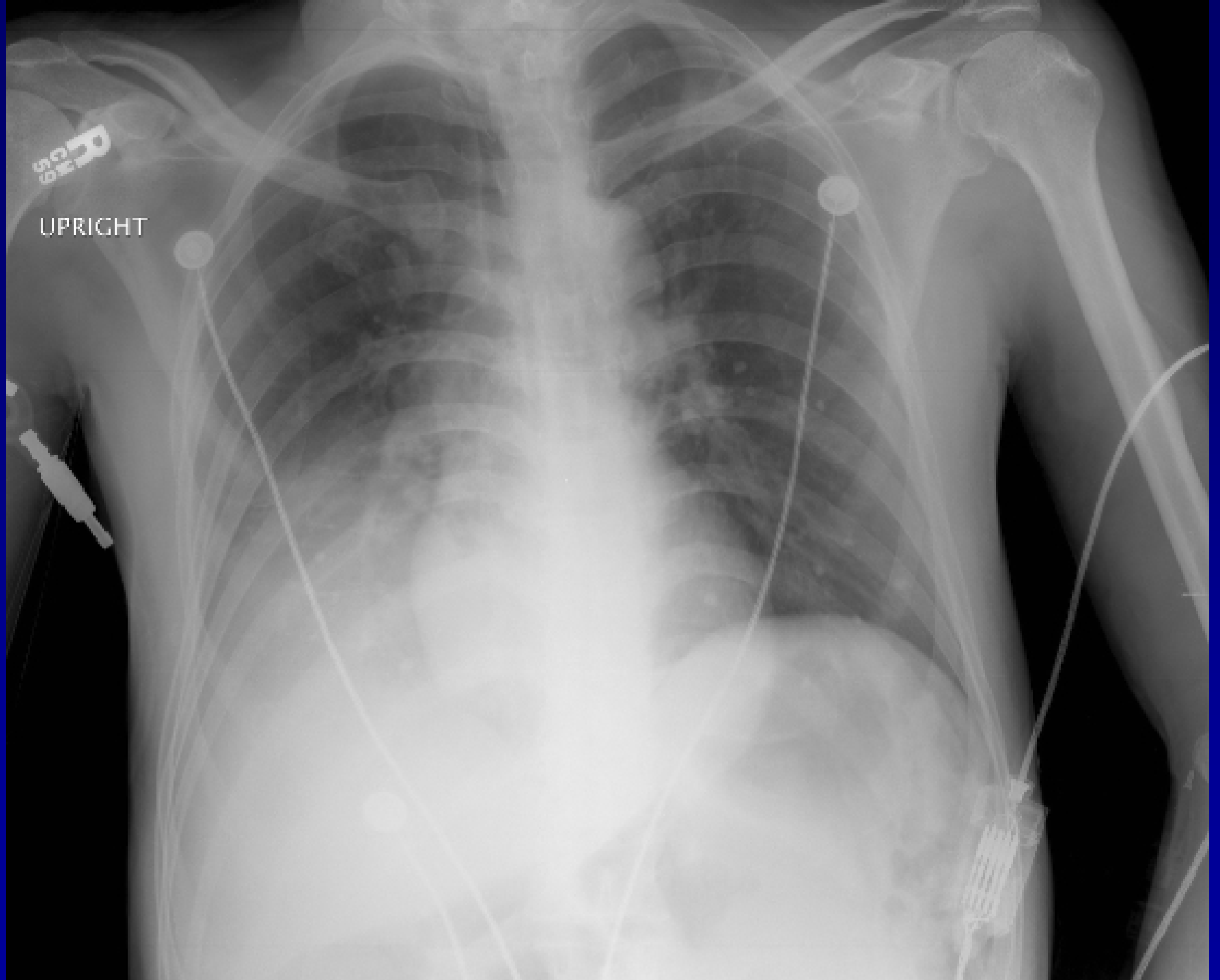
Cough and Altered Mental Status in a 50-year-old Male

History of Present Illness

- 50 year old Hispanic male with no prior medical history
- Brought to ED with fever and altered mental status
- He had cough for the last 2 days with some chest pain

Physical Examination

- Delirious, oriented x 1
- 90/55, HR=120, RR=28, T=101.4°F
- Neck: supple without adenopathy
- Lungs: dullness to percussion with crackles to right lower chest, + egophony
- Heart: regular rhythm without murmur
- Ext: no cyanosis, edema, or clubbing



UPRIGHT

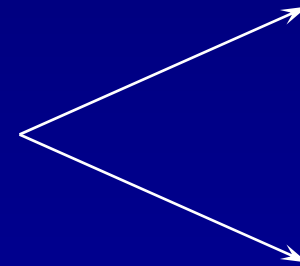
The Role of the ED in Management of CAP

- Make the diagnosis
- Decide on initial site of treatment
- Assist with initial treatment management
 - Antibiotics initiated within 4 hours
 - Appropriate initial antibiotic selection
 - Blood cultures
 - within 24 hours
 - before antibiotics are given
 - Oxygen assessment

A Prediction Rule to Identify Low-Risk Patients with Community Acquired Pneumonia

Fine et al., NEJM 1997; 336: 243

- Age > 50 years?
- Co-existing condition?
 - neoplastic disease
 - congestive heart failure
 - cerebrovascular disease
 - renal disease
 - liver disease
- Abnormalities on physical exam?
 - altered mental status
 - pulse \geq 125 bpm
 - respiratory rate \geq 30 bpm
 - systolic blood pressure < 90 mm Hg
 - temperature < 35°C or \geq 40°C



NO
Risk Class I

YES
Risk Classes II-V

Point Scoring System for Risk Classes II-V

<u>Characteristic</u>	<u>Points Assigned</u>
Age	
men	Age (yrs)
women	Age (yrs) - 10
Nursing Home resident	+10

Point Scoring System for Risk Classes II-V

<u>Characteristic</u>	<u>Points Assigned</u>
Co-existing Illnesses	
neoplastic disease	+30
liver disease	+20
CHF	+10
cerebrovascular disease	+10
renal disease	+10

Point Scoring System for Risk Classes II-V

<u>Characteristic</u>	<u>Points Assigned</u>
Physical Exam	
altered mental status	+20
Resp rate >30 bpm	+20
Systolic BP <90 mmHg	+20
T <35 °C or >40 °C	+15
Pulse > 125/min	+10

Laboratory

- WBC 53K; 39% PMN, 45% bands
- Na 131, K 4.6, Cl 97, $\text{HCO}_3^- < 5$
- BUN 34, Cr 2.2
- Glucose 735
- ABG on O_2 : pH 6.97, PCO_2 9, PO_2 100

Point Scoring System for Risk Classes II-V

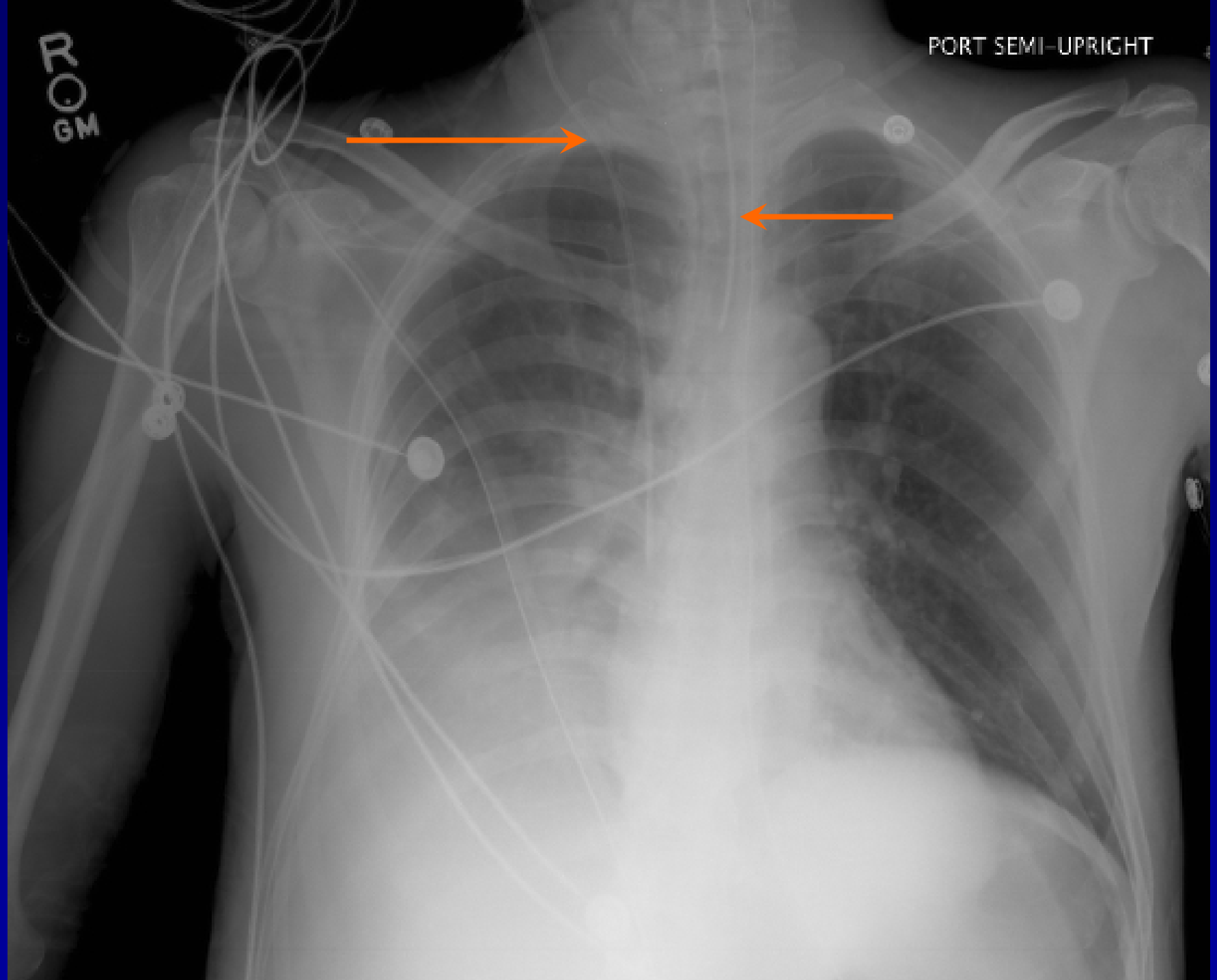
<u>Characteristic</u>	<u>Points Assigned</u>
Lab and radiographic findings	
arterial pH < 7.35	+30
BUN \geq 30 mg/dL	+20
Sodium < 130 mmol/L	+20
Glucose \geq 250 mg/dL	+10
Hematocrit < 30%	+10
PO ₂ < 60 mm Hg	+10
Pleural effusion	+10

Medical Outcomes According to Risk Class

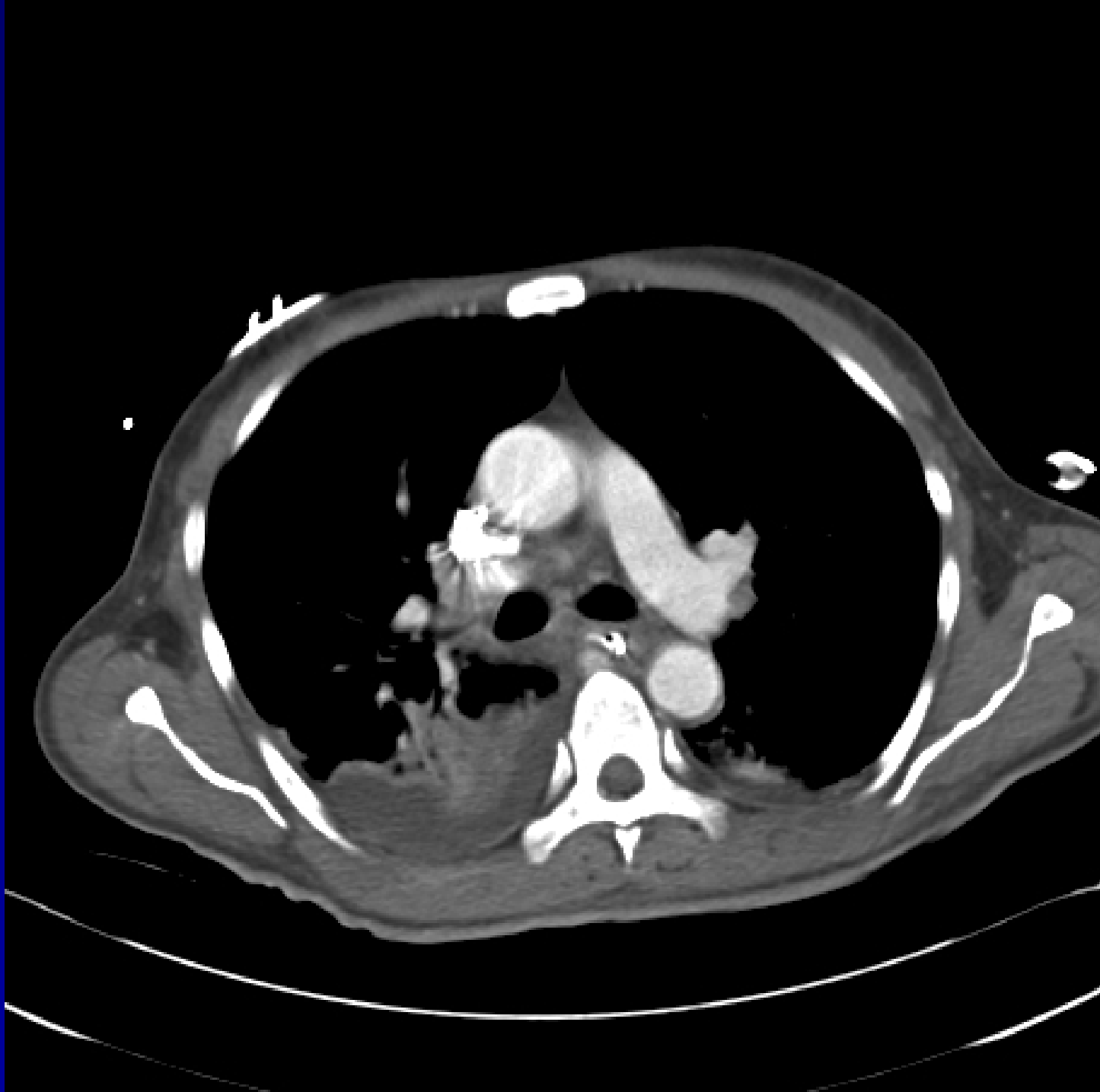
Class	Total Points	Mortality (%)	Subsequent	
			Hospitalization in Outpatients (%)	Hospital Stay (median days)
I	-	0-0.5	5.1	5.0
II	≤70	0.4-0.9	8.2	6.0
III	71-90	0-2.8	16.7	7.0
IV	91-130	8.2-12.5	20.0	9.0
V	>130	27.0-31.1	*	11.0

ROM
GM

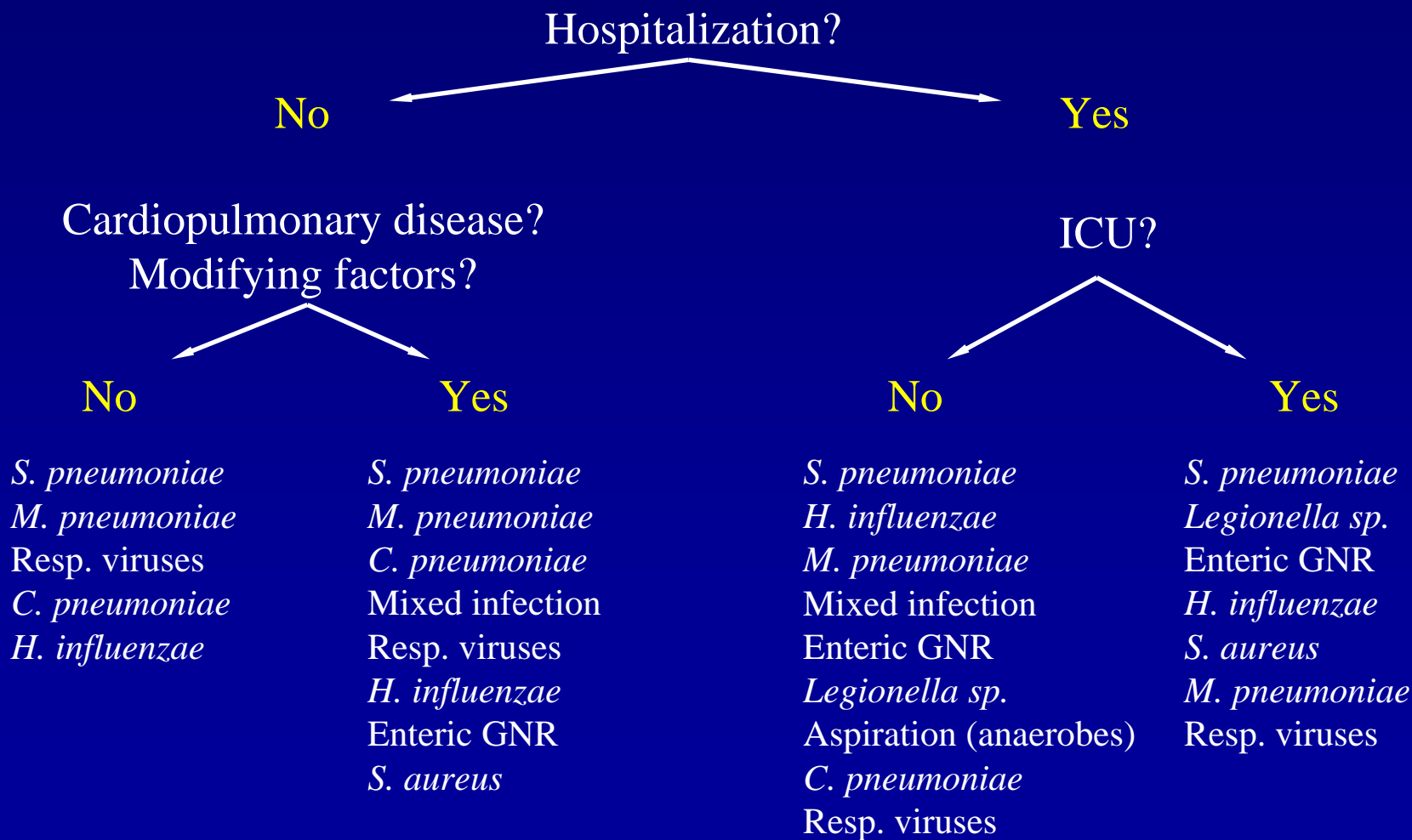
PORT SEMI-UPRIGHT








Most Common Organisms Associated with Patient Categories



Comparison of Recommendations

	ATS	IDSA	CDC
Outpatient			
macrolide	x	x	x
doxycycline	x	x	x
beta-lactam			x
beta-lactam + macrolide	x	x	
beta-lactam + doxycycline	x		
fluoroquinolone	x	x	
Inpatient			
beta-lactam + macrolide	x	x	x
fluoroquinolone	x	x	
ICU			
beta-lactam + macrolide	x	x	x
beta-lactam + fluoroquinolone	x	x	x

Important Indicators of Quality of Care for CAP -inpatient-

- Antibiotics initiated within 4 hours
- Appropriate initial antibiotic selection
- Blood cultures 

No longer required, but our patient grew Strep

 - within 24 hours
 - before antibiotics are given
- Influenza vaccination
- Pneumococcal vaccination
- Smoking cessation
- Oxygen assessment