

PSI/PORT Score: Pneumonia Severity Index for CAP **(ADMIT >90)**

Risk (yes/no)	Score	Risk (yes/no)	
Age	1/YEAR	SBP<90	20
Sex (M/F)	F (-10)	T<35C/95F;>39.9/103.8	15
NH resident	10	P>124	10
Neoplastic dz hx	30	pH<7.35	30
Liver dz hx	20	BUN>29	20
CHF hx	10	Na<130	20
CV dz hx	10	Glu>249	10
Renal dz hx	10	Hct<30	10
AMS	20	pO2<60	10
RR>29	20	CXR: Pleural effusion	10

PSI and Admission Decision

- Class I or II – Outpatient Therapy
- Class III – Outpatient Therapy or Observation
- Class IV or V – Inpatient (>90)
- Utilizing the PSI, <1% mortality in those recommended for outpatient therapy (but 4.3% subsequent admission to the ICU)
- *Observation **Inpatient

PSI Class, Mortality in PORT Cohort

Class	Points	Mortality (%)
I	No predictors	0.1
II	<=70	0.6
III*	71-90*	0.9
IV**	91-130**	9.3
V	>130	27.0

CURB-65 and PNA Severity

- CURB-65 provides risk stratification of CAP in ED for patients.
 - CURB-65 offers equal sensitivity of mortality prediction due to CAP as PSI but has a higher specificity (74.6%) than PSI (52.2%).
 - Clinical Indicator
 - **C**onfusion: +1 for YES
 - **U**N > 19mg/dl: +1 for YES
 - **R**esp Rate > 30: +1 for YES
 - **S**BP < 90 or **D**BP < 60 +1 for YES
 - **>65** +1 for YES
 - Score (> 3 deems inpatient consideration, 2 is OBS consideration)
 - 0-1 Point – Low severity, risk of death < 2%, outpatient therapy
 - 2 Points – Moderate severity, risk of death 9%, consider hospitalization (Obs vs IP)
 - 3-5 Points – High severity, risk of death >22%, Hospitalize as Inpatient and consider ICU if score 4-5
- If CURB-65 of 2 or more place in house (OBS) and reassess on D-Day for IP

SMART-COP <50/>50 yoa

- Systolic BP <90 2 points
- Multilobar infiltrates 1 point
- Albumin <35g/l 1 point
- Resp Rate >25/>30 1 point
- Tachycardia >125/min 1 point
- Confusion (acute) 1 point
- Oxygen low <93/<90 2 points
- pH < 7.35 2 points

Maximum= 11

Need for intensive respiratory or vasopressor support

- 3-4: 1 in 8 chance of needing IRVS,
- 5-6: 1 in 3 risk,**
- >7: 2 in 3 in needing IRVS.**

HF Respiratory Failure

- Acute respiratory failure types
 - Hypoxemic: low arterial levels ($\text{PaO}_2 < 60$ mmHg)
 - 60-80 mmHg is 91 \rightarrow 95% sat, < 60 mmHg is “resp failure”
 - Hypercapnic: elevated CO_2 ($\text{PaCO}_2 > 50$ mmHg)
- Clinically significant when symptomatic and usually diagnosed with ABG ($\text{pO}_2 < 60$ mmHg), or **pulse oximetry** ($< 90\%$)
- PE findings: tachypnea ($\text{RR} > 20$) or hypopnea (< 10), wheezing, increased work of breathing (retractions, acces. muscle use), AMS, cyanosis, impaired speech, DOE, etc.
- Hypoxemia (**NEED BASELINE SAT!!!**)
 - New O_2 requirement for supplemental O_2 due to hypoxia
 - Patient with baseline need for supplemental oxygen who now requires increased supplemental oxygen to maintain oxygenation at baseline or acceptable level
 - Decr. baseline pO_2 by > 10 mmHg OR $\text{SpO}_2 < 91\%$ on usual home O_2 amount