

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

Risk (yes/no)	Score	Risk (yes/no)	
Age	I/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
 - **Confusion:** +1 for YES
 - **BUN > 19mg/dl:** +1 for YES
 - **Resp Rate > 30:** +1 for YES
 - **SBP < 90 or DBP < 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 ($\text{PaO}_2 < 60 \text{ mmHg}$)
 - 60-80 mmHg is 91 $\rightarrow$ 95% sat, $< 60 \text{ mmHg}$ is “resp failure”
 - Hypercapnic: elevated CO_2 ($\text{PaCO}_2 > 50 \text{ mmHg}$)
- Clinically significant when symptomatic and usually diagnosed with ABG ($\text{pO}_2 < 60 \text{ mmHg}$), 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 $> 10 \text{ mmHg}$ OR $\text{SpO}_2 < 91\%$ on usual home O_2 amount