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

https://www.mdcalc.com/psi-port-score-pneumonia-severity-index-cap

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
  - B**U**N > 19mg/dl: +1 for YES
  - **R**esp Rate > 30: +1 for YES
  - S**B**P < 90 or DBP < 60 +1 for YES
  - **>65** +1 for YES

If CURB-65 of 2 or more place in house (OBS) and reassess on D-Day for IP

- 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

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.**

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HF Respiratory Failure

- Acute respiratory failure types
  - Hypoxemic: low arterial levels (PaO_2 < 60 mmHg)
    - 60-80 mmHg is 91 → 95% sat, < 60 mmHg is "resp failure"
  - Hypercapnic: elevated CO_2 ($PaCO_2$ > 50 mmHg)
- Clinically significant when symptomatic and usually diagnosed with ABG (pO2 < 60 mmHg), or **pulse oximetry** (<90%)
- PE findings: tachypnea (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 SpO_2 < 91% on usual home O_2 amount