

PNEUMONIA SEVERITY INDEX FOR COMMUNITY-ACQUIRED PNEUMONIA

Risk factor	Points
Demographics	
Men	Age (years): ____
Women	Age (years) - 10: ____
Nursing home resident	+10
Comorbidities	
Neoplasm	+30
Liver disease	+20
Heart failure	+10
Stroke	+10
Renal failure	+10
Physical examination findings	
Altered mental status	+20
Respiratory rate \geq 30 breaths per minute	+20
Systolic blood pressure < 90 mm Hg	+20
Temperature < 95°F (35°C) or \geq 104°F (40°C)	+15
Pulse rate \geq 125 beats per minute	+10
Laboratory and radiographic findings	
Arterial pH < 7.35	+30
Blood urea nitrogen > 30 mg per dL	+20
Sodium < 130 mmol per L	+20
Glucose \geq 250 mg per dL	+10
Hematocrit < 30 percent	+10
Partial pressure of arterial oxygen < 60 mm Hg	+10
Pleural effusion	+10
Total points:	

Point total	Risk class	Deaths/total (%)		Recommendation
		Adults with CAP*	Nursing home patients with CAP†	
< 51	I	3/1,472 (0.2)	None	Outpatient therapy should be considered, especially for patients in classes I and II
51 to 70	II	7/1,374 (0.5)	None	
71 to 90	III	41/1,603 (2.6)	1/21 (4.8)	
91 to 130	IV	149/1,605 (9.3)	6/50 (12.0)	Patient should be hospitalized
> 130	V	109/438 (24.9)	28/85 (32.9)	

*—Data for community-acquired pneumonia (CAP) are weighted averages from validation studies.²⁻⁴

†—Recommendations are consistent with clinical guidelines.^{5,6} Clinical judgment may overrule the guideline recommendation.

1. Mylotte JM, Naughton B, Saludades C, Maszaroni Z. Validation and application of the pneumonia prognosis index to nursing home residents with pneumonia. *J Am Geriatr Soc.* 1998;46:1538-1544.
2. Fine MJ, Auble TE, Yealy DM, Hanusa BH, Weissfeld LA, Singer DE, et al. A prediction rule to identify low-risk patients with community-acquired pneumonia. *N Engl J Med.* 1997;336:243-250.
3. Aujesky D, Auble TE, Yealy DM, Stone RA, Obrosky DS, Meehan TP, et al. Prospective comparison of three validated prediction rules for prognosis in community-acquired pneumonia. *Am J Med.* 2005;118:384-392.
4. Flanders WD, Tucker G, Krishnadasan A, Martin D, Honig E, McClellan WM. Validation of the pneumonia severity index. Importance of study-specific recalibration. *J Gen Intern Med.* 1999;14:333-340.
5. Niederman MS, Mandell LA, Anzueto A, Bass JB, Broughton WA, Campbell GD, et al; American Thoracic Society. Guidelines for the management of adults with community-acquired pneumonia. Diagnosis, assessment of severity, antimicrobial therapy, and prevention. *Am J Respir Crit Care Med.* 2001;163:1730-1754.
6. Mandell LA, Bartlett JG, Dowell SF, File TM Jr, Musher DM, Whitney C; Infectious Diseases Society of America. Update of practice guidelines for the management of community-acquired pneumonia in immunocompetent adults. *Clin Infect Dis.* 2003;37:1405-1433.

Developed by Michael J. Fine, MD, Thomas E. Auble, PhD, Donald M. Yealy, MD, Barbara H. Hanusa PhD, Lisa A. Weissfeld, PhD, Daniel E. Singer, MD, et al. Copyright © 1997 Massachusetts Medical Society. Adapted with permission, 2006. Physicians may photocopy for use in their own practices; all other rights reserved. "Outpatient vs. Inpatient Treatment of Community-Acquired Pneumonia." Ebell MH. *Family Practice Management.* April 2006:41-44; <http://www.aafp.org/fpm/20060400/41outp.html>.