

Exclusion Criteria: < 18 years old; Pregnancy/breastfeeding; CrCl <30 mL/min or hemodialysis (renally excreted biomarker); Severe immunosuppression (e.g. ANC <500, HIV w/ CD4 <200, transplant patients or on immune modulators); Severe trauma, burn, or major surgery within 24 hours (particularly abdominal surgery); Chronic infections necessitating antibiotics (e.g. endocarditis, osteomyelitis, tuberculosis); Cystic fibrosis; Small cell lung cancer or medullary thyroid cancer; Receipt of OKT-3 and/or anti-thymocyte globulin; End-stage cancer; Concurrent infections

Procalcitonin (PCT) in Adult Lower Respiratory Tract Infections

Initial Values (Baseline)

PCT Value	<0.1 ng/mL	0.1-0.24 ng/mL	0.25-0.5 ng/mL	>0.5 ng/mL
Antibiotic START Recommendation	Initiation Strongly discouraged	Initiation Discouraged	Initiation Encouraged	Initiation Strongly Encouraged
Comments	<ul style="list-style-type: none"> Hold on giving antibiotics Consider alternative diagnosis Repeat PCT in 6-12 hours if antibiotics not initiated and no clinical improvement If clinically unstable or high risk consider overruling (PSI Class IV-V, CURB-65 >3) 		<ul style="list-style-type: none"> Start antibiotics Repeat every 2-3 days to consider early antibiotic cessation. If initial value is >5-10 ng/mL, assess for reduction of 90% from peak values. 	

Follow-Up (Repeat PCTs q48-72 hours)

PCT Value	<0.1 ng/mL or ↓ by >90%	0.1-0.24 ng/mL or ↓ by >80%	0.25-0.5 ng/mL	>0.5 ng/mL
Antibiotic STOP Recommendation	Cessation Strongly Encouraged	Cessation Encouraged	Cessation Discouraged	Cessation Strongly Discouraged
Comments	<ul style="list-style-type: none"> STOP antibiotics Consider continuing if clinically unstable 		<ul style="list-style-type: none"> Continue antibiotics If PCT rising or stable, consider possible treatment failure and evaluate for need for expanding antibiotic coverage or further diagnostic evaluation 	

PCT in Adults for Sepsis without a Source

Follow-Up (Repeat PCTs q24 hours or with AM labs daily x3 days)

PCT Value	<0.25 ng/mL	0.25-0.49 ng/mL or ↓ by >80%	≥0.5 ng/mL AND ↓ by <80%	≥0.5 ng/mL AND rising or stable
Antibiotic STOP Recommendation	Cessation Strongly Encouraged	Cessation Encouraged	Cessation Discouraged	Cessation Strongly Discouraged
Comments	<ul style="list-style-type: none"> STOP antibiotics Consider continuing if clinically unstable 		<ul style="list-style-type: none"> Continue antibiotics A PCT value which is rising or not declining at least 10% per day is a poor prognostic indicator and suggests infection is not controlled; Consider expanding antibiotic coverage or further diagnostic evaluation 	