Pneumonia Evaluation **Patient Name** **Patient DOB**

Date	Chief complaint/Reason for consult	Referring MD
Start time **Stop time**		

Medications

❑Medications reviewed
❑*Medications reconciled with Nursing Home or Hospital discharge Information* ☆**46**
Changes as follows

Allergies
❑ Allergy List reviewed
❑ No drug allergies
❑ No food allergies

History of Present Illness ❑Patient is Nonverbal. History obtained from ❑ Family ❑ Medical records

History of
❑Pleuritic chest pain present
❑New or increased cough or dyspnea
❑New or increased peripheral edema
❑Orthopnea or paroxysmal nocturnal dyspnea
❑Recent hematemesis or nose bleeds
❑Recent fever, chills or nightsweats
❑Taken antibiotics in past 6 months *
❑Patient is a nursing home resident *
❑Patient has been hospitalized in post 14 days*
❑ Recent mechanical ventilation *
❑Recent severe emesis or esophageal dilatation
❑MI or cardiothoracic surgery in prior month
❑COPD, CHF, DM, renal dysfunction, sickle cell
❑Malignancy or immunocompromised state *
❑Neuromuscular weakness, scleroderma
❑Being primarily bedridden
❑Alcohol, narcotic or benzodiazepine use
❑Recent exposure to children in daycare *
❑Recent travel (consider SARS, Avian Influenza, endemic fungus, TB, etc.)
**(Consider atypical sources, S. pneumo, S. aureus, P. aeruginosa or drug resistant organisms)*

Social History

❑Never Smoker
❑Tobacco ____ # Packs X ____ # Yrs
❑ Quit
❑Patient is unwilling to quit
❑Patient willing to consider quitting
❑Patient quit, but resumed smoking
❑Patient willing to quit within 1 month
Patient has tried
❑Nicotine replacement
❑Buproprion or nortriptyline
❑Nicotine receptor blockade
Daily, occasional and ex-smokers are more likely to be hazardous drinkers
❑Alcohol use
Drinks per ❑day ❑week
Hazardous drinking
NIAAA (National Institute on Alcoholism and Alcohol Abuse guidelines)
Men > 14 drinks per week OR > 4 drinks per day
Women > 7 drinks per week OR >3 drinks per day
❑Recreational drug use
❑*Inhalational* ❑*Injectable* ❑*Ingestible*
❑Drug dependence
❑*Narcotics* ❑*Benzodiazepines*

Review of Systems

See HPI WNL

❑	❑ **Constitutional**	Fatigue, malaise, fever/chills, weight loss, change in appetite
❑	❑ **Eyes**	Vision changes, New pain, Scotomas
❑	❑ **ENT/mouth**	Nose bleeds, dental caries, dental abscesses, jaw pain
❑	❑ **Resp**	Dyspnea, Cough, Phlegm, Hemoptysis, Wheeze, Witnessed Apnea
❑	❑ **CV**	Chest pain, diaphoresis, ankle edema, PND, syncope
❑	❑ **GI**	Emesis, dysphagia, GERD, abdominal pain, diarrhea, melena
❑	❑ **GU**	Change in urinary habits, hematuria, dysuria
❑	❑ **Musc**	Myalgias, recent trauma, bony fractures, arthralgias, joint swelling
❑	❑ **Skin/breasts**	Rashes, new masses or skin lesions, increased sensitivity to sun
❑	❑ **Neuro**	Seizures, episodic or chronic muscle weakness
❑	❑ **Endo**	Hair loss, polydipsia
❑	❑ **Heme/lymph**	Bleeding gums, unusual bruising, swollen lymph nodes
❑	❑ **Allergy/Immun**	Sinus probs, recurrent infections
❑	❑ **Psych**	Mood changes, agitation, psychosis, delirium, dementia

Vaccines ❑Flu ❑Pneumo ❑BCG ❑Tetanus ❑Pertussis ❑Varicella

Occupational and Exposure History

❑Inorganic dusts i.e., quarries, sandblasting, cement, stone carving, welding, plumbing, shipyard work, firefighter
❑Organic dusts i.e., farming, building inspection, woodworking, remodeling, handling vegetable matter or animals
❑Noxious fumes i.e., spray painting, autobody work, working with dyes or glues, manufacturing plastic
❑Hot tub or Jacuzzi
❑High Pressure washings
❑Pets or feathers
❑Chemicals or fires

Family Medical History

❑ Asthma
❑ Congestive Heart Failure
❑ COPD
❑ Coronary Artery Disease
❑Premature Onset
❑ Cystic Fibrosis
❑ Malignancy
❑ Peripheral Artery Disease
❑ Renal Dysfunction
❑ Rheumatoid Arthritis
❑ Sjogren
❑ Thyroid Disease

Past Medical and Surgical History

❑ Asthma
❑ Bronchiectasis
❑ COPD
❑ COP (BOOP)
❑ Cystic Fibrosis
❑ Histiocytosis
❑ Tuberculosis
❑ PAH
❑ Sarcoidosis
❑ Tuberculosis
❑ Wegener's
❑ Cerebral Artery Disease
❑ Congestive Heart Failure
❑ Coronary Artery Disease
❑ Diabetes
❑ GERD
❑ Hepatic Dysfunction
❑ HIV/AIDS
❑ Hypertension
❑ Inflam bowel disease
❑ Malignancy
❑ Neuromuscular weakness
❑ Occupational exposures
❑ Pancreatitis
❑ Peripheral Artery Disease
❑ Scleroderma
❑ Seizure Disorder
❑ Sjogren
❑ Renal Dysfunction
❑ Rheumatoid arthritis
❑ Thrombotic Disease
❑ Thyroid Disease
❑ Chemotherapy
❑ Colonoscopy
❑ ECHO/Stress Test
❑ Mammogram
❑ PFTs
❑ PapSmear
❑ Prior Intubations
❑ Radiation exposure
❑ Sleep Study
❑ Steroid use

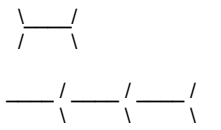
Surgeries

❑ Obstructive Sleep Apnea ❑ CPAP ❑ BiPAP

 Revised 7Feb08 ☆Indicates Physician Quality Reporting Initiative (PQRI) Physician Quality Measures

Pneumonia Evaluation **Patient Name** **Patient DOB**

Prior Diagnostic Data



Exam

Ventilator Settings **Mode** **Rate** **Tidal Vol** **PEEP** **PS** **FiO2** **PO2/FiO2** **Plateau Pressure**

NonInvasive Ventilator (CPAP, BiPAP) Settings

General ❑ Alert **Vitals** **T** **P** **R** **BP** **Sats** **%**

ENT ❑ Nasal mucosa ❑ Dentition ❑ Oropharynx Mallampati ❑I ❑II ❑III ❑IV

Neck ❑ Normal to palpation ❑ Thyroid ❑ No JVD

Resp ❑ Clear to auscultation ❑ Dullness to percussion ❑No respiratory distress
❑No chest wall defects ❑ Decreased fremitus ❑ Bronchial breath sounds
❑ Absence of intercostal respiratory retractions ❑ Egophony (E to A change)

CV ❑ Clear S1 S2 ❑ No murmur ❑ No gallop ❑No rub ❑ Peripheral pulses ❑ No peripheral edema

GI ❑No palpable masses ❑ Liver and spleen not palpable ❑ No hepatojugular reflux

Lymph ❑ No lymphadenopathy

Musc ❑Tone ❑ Gait

Extrem ❑ No clubbing ❑ No cyanosis

Skin ❑ No rashes, ecchymoses, nodules, ulcers

Neuro ❑ Oriented ☆**58** (Pts with Community Acquired Bacterial Pneumonia) ❑Affect

Glasgow Coma Score E____ V____ M____ APACHE II Score ____

AHRQ Pneumonia Severity Index

Age

Male	Age (in years)
Female	Age (in years) – 10
NH resident	Age (in years) +10

Comorbid illnesses

Neoplastic disease	+30
Liver disease	+20
CHF	+10
Cerebrovascular disease	+10
Renal disease	+10

Physical exam findings

Altered mental status	+20
Respiratory rate >/= 30	+20
Systolic BP < 90	+20
Temp < 35 degrees or > 40	+15
Pulse > 124	+10

Lab Findings

pH <7.35	+35
BUN >10.7 mmol/L	+20
Sodium <130 mEq/L	+20
Glucose > 13.9 mmol/L	+10
Hematocrit <30 percent	+10
pO2 <60 mmHg	+10
Pleural effusion	+10

Risk	Risk Class	Based on
Low	I	Algorithm
Low	II	< 71 points
Low	III	71-90 points
Moderate	IV	91-130 points
High	V	>130 points

Labs/Tests

Impression and Plan

❑ *Patient has completed advanced health care directives*☆**47** *HCPOA is*

Code Status ❑ ***Patient is a FULL CODE*** ❑ ***DO NOT ATTEMPT RESUSCITATION***

❑ CBC
❑ CMP
❑ ABG
❑ Blood cultures – 2 sets
❑ BNP
❑ Cardiac enzymes
❑ HIV

Urinary antigen for
❑ Pneumococcus
❑ Legionella
❑ Histoplasma
❑ Strep pneumonia

Nasopharyngeal wash for
❑ RSV, Influenza A & B, Parainfluenza

Sputum cultures
❑ Gram stain and bacterial culture
- ❑ Pneumocystis
- ❑ Chlamydia
- ❑ Legionella
- ❑ Tularemia
- ❑ Anthrax
- ❑ Mycoplasma
- ❑ Coxiella
- ❑ Nocardia
- ❑ Rhodococcus

❑ Fungal stain and culture
❑ AFB stain and culture
Viral culture ❑ Varicella zoster ❑ HSV
❑CXR (PA, lateral, lateral decubitus)
❑CT of chest

Signature

cc

Data Reviewed: ❑ER Notes ❑Chart ❑Nursing Notes/Vitals log ❑Labs ❑Radiology data ❑ECHO ❑ECG ❑Stress Test ❑PFT

Care Coordinated with: ❑HCPOA ❑ PCP ❑Case Mgmt or SW ❑Pharmacy ❑Nursing

 Revised 7Feb08 ☆Indicates Physician Quality Reporting Initiative (PQRI) Physician Quality Measures

Pulmonary and Critical Care New Patient Evaluation Template Date Start time Stop time

Definitions

Sepsis
Positive blood culture AND
Heart rate >/= 90
Temp </= 36 C or >/= 38 C
Resp rate >/= 20 OR
PCO2 </= 32 on ABG
WBC </=4000 OR
>/= 12000 OR
>/= 10% Bands

Without a positive blood culture, the above findings are consistent with Systemic Inflammatory Response Syndrome ***(SIRS)***

Severe Sepsis
The patient must meet the above criteria AND have hypotension, hypoperfusion or organ dysfunction.
Hypotension is defined as
SBP < 90
MAP </= 70 mmHg
OR drop of >/= 40 mmHg

Septic Shock
The patient must meet the above criteria AND have refractory shock (hypotension not responsive to fluid resuscitation).
Systolic BP </= 90,or MAP </= 70

Acute Lung Injury
Bilateral infiltrates on radiograph
PO2/FiO2 201-300 regardless of PEEP
No evidence of elevated left atrial pressure OR PCWP < 18 mmHg

Acute Respiratory Distress Syndrome (ARDS)
PO2/FiO2 </=200

Sepsis Treatment Goals
Institute for Healthcare Improvement (www.ihi.org)
1. Blood cultures before administration of broad spectrum antibiotics
2. Broad spectrum antibiotics given in </= 1 hr (ICU admit) In </-=3 hr (ED admit)
3. CVP of 8-12mmHg in </= 6 hours
4. ScvO2 >/= 70% OR SvO2 >/= 65% in </= 6 hours
5. Low dose steroids, if applicable
6. Drotrecogin Alfa administrations in </= 24 hours, if applicable
7. Glycemic control with median blood glucose of < 150 within 24 hours
8. Inspiratory plateau pressure of < 30cm H2O With a tidal volume of 6 ml/kg (based on Ideal Body Weight)

Ventilator Strategies (www.ihi.org)
1. Head of bed elevated by >/= 30 degrees
2. Daily sedation vacation AND assessment of ability to wean from ventilator
3. Stress ulcer prophylaxis
4. Deep Venous Thrombosis prophylaxis

Oxygen Coverage
PO2</=55 OR Sats </=90%
PO2 56-59 OR Sats 89% WITH
CHF
Cor pulmonale
P wave >2mm *lead II, III or AVF*
Hct >56%
Sats </=88% for >5 minutes during sleep

NOT COVERED
PO2 >59 OR Sats >89%

APACHE II Score - *To be obtained within first 24 hours of ICU Admission*

APACHE II: a severity of disease classification system Crit Care Med 1985 13(10):818-29
An evaluation of outcome from intensive care in major medical centers Ann Intern Med 1986 104(3):410
Prediction of outcome from intensive care: a prospective cohort study comparing Acute Physiology and Chronic Health Evaluation II and III prognostic systems in a United Kingdom intensive care unit Crit Care Med 1997 25(1):9-15

Physiologic Variable	0	1	2	3	4
Temperature	96.8-101.2	101.3-102.1 93.2-96.7	89.6-93.1	102.2-105.7	>105.7
Heart Rate	70-109	n/a	110-139 55-69	140-179 40-54	>161 < 50
MAP (2 x DBP + SBP)/3	70-109	n/a	110-129 50-69	130-159	>181 <40
Resp Rate	12-24	25-34 10-11	6-9	35-49	>49 < 6
Oxygenation					
If FiO2 > 49%, A-a	< 200		200-349	350-499	>500
If FiO2 < 50%, PO2	>70	61-70		55-60	<54
Serum Na+	130-139	150-154	155-159 120-129	160-179 111-119	>179 < 111
Serum K+	3.5-5.4	5.5-5.9 3.0-3.4	2.5-2.9	6.0-6.9	>7.1 < 2.5
Serum Creatinine (Double if in ARF)	0.6-1.4	n/a	1.5-1.9 <0.6	2.0-3.4	>3.4
Arterial pH	7.33-7.49	7.50-7.59	7.25-7.32	7.60-7.69 7.15-7.24	>7.69 <7.15
WBC	3.0-14.9	15-19.9	20-39.9 1.0-2.9	n/a	>39 <1.0
Hematocrit	30-45.9	46-49.9	50-59.9 20-29.9	n/a	>59 <20
GCS Score = 15 – GCS Score (Eye + Motor + Verbal)					
					Physiology Score _____

Total APACHE II Score = Acute Physiology Score + Chronic Health Points + Age Points

Chronic Health Points for APACHE II
Non-operative, or emergency post-op & any conditions below 5
Elective operation & any conditions below 2
CHP Score _____

Cirrhosis with portal hypertension OR encephalopathy; class IV angina; chronic hypoxia; hypercarbia or polycythemia; chronic dialysis; immunocompromised

Age Points for APACHE II
<45 = 0
45-54 = 2
55-64 = 3
65-74 = 5
>74 = 6
Age Score _____

Total APACHE II Score _____

Physiologic Score
Temp _____
HR _____
MAP _____
RR _____
Oxygenation _____
Serum Na _____
Serum K _____
Serum Creatinine _____
Art pH _____
WBC _____
Hct _____
GCS _____
15 – GCS Score
(Eye + Motor + Verbal)
Physiology Score _____

Glasgow Coma Score

Eye response _____
1 -None
2 - Eyes open to pain
3 - Opens to verbal command
4 - Open spontaneously

Verbal response _____
1 – None
2 – Incomprehensible sounds
3 – Inappropriate words
4 – Confused
5 – Oriented

Motor Response _____
1 – None
2 – Extension to pain
3 – Flexion to pain
4 – Withdrawal from pain
5 – Localizes pain
6 – Obeys commands

Total Score < 9 indicates severe brain injury
LANCET (ii) 81-83, 1974.

Predicted Mortality Based on APACHE II Score

Score	Interpretation
0-4	~4% death rate
5-9	~8% death rate
10-14	~15% death rate
15-19	~25% death rate
20-24	~40% death rate
25-29	~55% death rate
30-34	~75% death rate
over 34	~85% death rate

Stages of chronic kidney disease

Stage	GFR (mL/min/1.73m^2)	Action
1	>89	Diagnosis and treatment. Treat comorbid conditions. Slow progression.
2	60-89	Estimate progression
3	38-59	Evaluate and treat complications
4	15-29	Prepare for kidney replacement therapy
5	<15	Replacement (if uremia is present)

The National Kidney Foundation recommends estimating GFR by use of the Cockcroft-Gault or MDRD equations

General Acid-Base Rules

	Acidosis	Alkalosis
Acute Resp	ΔpH = -0.008 x ΔPCO2 ΔHCO3 = 0.1 x ΔPCO2 (+/-3)	ΔpH = 0.008 x ΔPCO2 ΔHCO3 = -0.2 x ΔPCO2 (usually not to less than 18 mEq/L)
Chronic Resp	PCO2 = 2.4(HCO3) – 22 ΔHCO3 = 0.35 x ΔPCO2 (+/-4)	ΔHCO3 = -0.4 x ΔPCO2 (usually not to less than 18 mEq/L)
Metabolic	PCO2 = 1.5(HCO3) + 8 +/-2 PCO2 ~ last 2 digits pH ΔPCO2 = 1.2 x ΔHCO3	PCO2 = 0.9(HCO3) + 9 +/-2 ΔPCO2 = 0.6 x ΔHCO3