

DAILY SCREENING FORM

Patient’s initials: _____ Date of admission: _____ Time of admission: _____ Gender: M F

Year of Birth: _____ Type of admission: Medical/Surgical/Postoperative (elective)

Days since admission	Date	Mechanical ventilation (circle the appropriate mode)	Lung fields on Radiology	PaO ₂	FiO ₂	PaO ₂ /FiO ₂	Severe respiratory failure Criteria fulfilled?*
Day of admission		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
1		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
2		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
3		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
4		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
5		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
6		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
7		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
8		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
9		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
10		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
11		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO

***If NIV/IV/CPAP with end expiratory pressure ≥5 cmH₂O AND abnormal lung radiology AND PaO₂/FiO₂<300 mmhg (or < 40kPa), please move to the "Study form", otherwise, please reevaluate the patient the next day**

Large observational study to UNDERstand the Global impact of Severe Acute respiratory Failure – [‘LUNG-SAFE’]

		None of the Above	Not done				
12		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
13		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
14		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
15		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
16		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
17		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
18		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
19		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
20		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
21		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
22		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
23		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
24		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
25		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
26		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO
27		Inv. MV PEEP>5/ NIMV EPAP>5/ CPAP>5/ None of the Above	Normal/ Abnormal/ Not done				<input type="checkbox"/> YES <input type="checkbox"/> NO

***If NIV/IV/CPAP with end expiratory pressure ≥5 cmH₂O AND abnormal lung radiology AND PaO₂/FiO₂<300 mmhg (or < 40kPa), please move to the "Study form", otherwise, please reevaluate the patient the next day**

BASELINE DATA COLLECTION FORM - Study Day 1

Date of fulfillment of criteria for severe respiratory failure (from screening form): _____

Date of Hospital Admission: ___ / ___ / 201__ __ : __ (24 h clock)

Height (first documented at ICU admission): _____ inch cm

Weight (first documented at ICU admission): _____ lbs kg

Admission Source:

- Other hospital (ICU) Other hospital (Ward) ER/ambulance
 Operating Room Study Hospital (Ward) Study Hospital (Other ICU)
 Other, please specify _____

If patient transferred from another hospital and/or ICU:

What was date of Admission to that Hospital: _____

If patient transferred from external ICU, what was date of ICU Admission: _____

- Reason for transfer: ICU Bed Unavailability Need for more advanced support
- Need for specialty medical input Other (please be precise): _____

Co-morbidities (check all that Apply):

- COPD
 Diabetes Mellitus
 Chronic Renal Failure
 Active Neoplasm
 Hematologic neoplasm
 Immunosuppression
 Heart failure: NYHA classes III-IV
 Chronic liver failure (Child-Pugh Class C)
 Home Ventilation

ARDS Risk Factor (check all that apply):

Direct	Indirect
Pneumonia	Non-pulmonary sepsis
Aspiration of gastric contents	Major trauma
Inhalational injury	Pancreatitis
Pulmonary contusion	Severe burns
Pulmonary vasculitis	Non-cardiogenic shock
Drowning	Drug overdose
	Multiple transfusions/transfusion-associated acute lung injury (TRALI)
OTHER (Specify):	

<input type="checkbox"/> NONE

Date of the insult: __ / __ / ____ OR Not Known

Can hypoxemia be entirely explained by cardiac failure?

Yes No

**Did you use any of these method to rule out the cardiac origin of the disease?
(check all that apply):**

<input type="checkbox"/>	Echocardiography
<input type="checkbox"/>	Pulmonary artery catheter
<input type="checkbox"/>	Transpulmonary thermodilution (e.g., PiCCO)
<input type="checkbox"/>	Other (specify):
<input type="checkbox"/>	None:

What is/are the cause(s) of the patient’s acute hypoxemic respiratory failure (check all that apply)?

- Pneumonia
- Cardiac Failure
- Asthma
- ARDS
- COPD
- Unknown
- Other _____

Are there new or worsening respiratory symptoms within the last week?

Yes No

DAILY DATA COLLECTION FOR PATIENTS WITH SEVERE RESPIRATORY FAILURE¹

Day _____ Date of this form _____

Is the patient in the ICU on this date? YES NO*

* If “NO” please complete the discharge/Death forms

ARTERIAL BLOOD GAS	Units	Value
pH:		
PaO ₂ :		
PaCO ₂ :		
FiO ₂ :		
Arterial blood gas not available		<input type="checkbox"/>
SpO ₂		

CHEST X-RAY (CXR) / CT SCAN	
Chest x-ray (CXR) / CT scan not available	<input type="checkbox"/>
Bilateral opacities on the CXR/CT scan	Yes <input type="checkbox"/> No <input type="checkbox"/>
Number of involved quadrants:	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/>

Mechanical Ventilation (Please record ventilatory settings as close as possible to the ABG):

Invasive Non-invasive Only O₂ None

Modality

- Volume A/C
- PC/BIPAP/APRV
- SIMV
- PRVC
- PSV
- NAVA
- HFO
- CPAP
- T-Tube
- Other

Ventilatory settings:	
Respiratory Rate (set)	
Respiratory Rate (Total)	

¹ Data is collected at at 10am on Days 1,2,3,5,7 inclusive, Day 10, 14, 21, 28 until ICU discharge/death.

Tidal Volume (ml)	
PEEP (cmH ₂ O)	
Plateau Pressure available?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Plateau Pressure (cmH ₂ O)	
Peak Inspiratory Pressure (PIP) (cmH ₂ O)	
Mean Airway Pressure (MAP) (cmH ₂ O)	
Is the patient triggering the Ventilator?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Oxygen flow (for t-tube or O ₂ therapy)	

Adjunctive Measures/Therapies (in the last 24 hours – check all that apply)

Prone positioning *	CT scan
Recruitment maneuvers	Alveolar surfactant
Extracorporeal membrane oxygenation (If yes: V-V or A-V or V-A)	Lung Ultrasound
High dose corticosteroids	Renal Replacement Therapy
Almitrine besylate	Tracheostomy
Continuous Sedation	Inhaled vasodilators
Oesophageal pressure monitoring**	Neutrophil Elastase Therapy
Continuous Neuromuscular Blocking Agents	
Pulmonary Artery Catheter	Mean pulmonary arterial pressure: _____
None of the above	

Sequential Organ Failure Assessment (SOFA) Score (worst value over last 24hrs)

(only for days 1,2, 7,10, 14, 21, 28)

SOFA Score	Units	Value	NOT AVAILABLE
Estimated Glasgow Coma Scale			<input type="checkbox"/>
Mean Arterial Pressure	mmHg		<input type="checkbox"/>
Vasopressors used? Yes/No			
Dopamine infusion			<input type="checkbox"/>
Dobutamine infusion			<input type="checkbox"/>
Noradrenaline infusion			<input type="checkbox"/>
Adrenaline infusion			<input type="checkbox"/>
Platelet Count($\times 10^3/\text{mm}^3$)			<input type="checkbox"/>
Total Bilirubin	$\mu\text{mol/L}$ mg/dL		<input type="checkbox"/>
Creatinine (mg/dL)			<input type="checkbox"/>
OR Creatinine ($\mu\text{mol/L}$)			<input type="checkbox"/>
OR Urine Output (mL/day)			<input type="checkbox"/>

*** For Patients Receiving prone position:**

	Units	Supine (before pronation)	Prone
pH:	-----		
PaO ₂ :			
PaCO ₂ :			
PEEP	cmH ₂ O		
Plateau pressure	cmH ₂ O	<input type="checkbox"/>	
Duration of the session	hours		

**** For Patients receiving Oesophageal pressure measurement:**

Why was esophageal pressure used?

- To measure chest wall elastance
- To facilitate PEEP titration
- To assess the Work of breathing
- To assess synchrony
- Other: _____

OUTCOME AND ICU DISCHARGE/DEATH

OUTCOMES AT ICU DISCHARGE/DEATH

ICU (or day 90) Outcome (whichever event comes first)
 Alive Dead

Date of ICU discharge/Death: __ / __ / ____

For patients without severe respiratory failure only this section is necessary

Discharged to:

- Other ICU Hospital Ward Intermediate Care Unit Hospital Discharge
 (go to Form 5)

Did the patient develop additional risk factors for ARDS (in addition to those indicated in the "STUDY DATA-BASELINE" form) (check all that apply):

	Direct	Indirect
	Pneumonia	Non-pulmonary sepsis
	Aspiration of gastric contents	Major trauma
	Inhalational injury	Pancreatitis
	Pulmonary contusion	Severe burns
	Pulmonary vasculitis	Non-cardiogenic shock
	Drowning	Drug overdose
		Multiple transfusions/transfusion-associated acute lung injury (TRALI)
OTHER (Specify):		

Could patient hypoxemia be entirely explained by cardiac failure?

- Yes No

Did you use any of these method to rule out the cardiac origin of the disease? (check all that apply):

	Echocardiography
	Pulmonary artery catheter
	Transpulmonary thermodilution (e.g., PiCCO)
	Other (specify):
	None:

Did the patient have ARDS at any stage of their ICU stay?

- Yes No

Respiratory status at ICU Discharge (Check all that apply):

- Tracheostomy Invasive ventilation Non-invasive ventilation CPAP
 Oxygen therapy No oxygen therapy

Date of liberation from MV: __ / __ / _____

If patient did not survive:

What was the most important factor leading to ICU Death (Check one)?

- Respiratory Failure
- Cardiovascular Failure [i.e. Unresponsive Shock]
- Renal Failure
- Hepatic Failure
- Coagulation Failure
- Neurologic Failure

Limitations in Care

Was there a decision to withhold a life sustaining measure at any time during the ICU stay? Yes No

Was there a decision to withdraw a life sustaining measure at any time during the ICU stay? Yes No

Date of decision to withhold/withdraw life sustaining measures: __ / __ / _____

Did the patient undergo an autopsy (i.e. post mortem) examination

- Yes No

If an Autopsy was performed, what did lung histology demonstrate [Check all that apply]

- Pneumonia
- Diffuse Alveolar Damage
- Pulmonary Oedema
- Atelectasis
- Alveolar Haemorrhage
- No lung pathology
- Other (Specify) _____

DISCHARGE/DEATH

ADDITIONAL DISCHARGE FORM FOR PATIENT WITHOUT RISK FACTORS FOR ARDS

This form is required only for patients with “none” selected as risk factor for ARDS

Was a broncho-alveolar lavage (BAL) fluid analysis performed? Yes No

No

If yes, please provide

○ Day BAL performed*: __ / __ / _____

○ Cytological analysis:

Macroscopic aspect: normal bloody or pink lactescent

Number of cells: _____ / mL

Macrophages: __ % lymphocytes: __ % neutrophils: __ %

mast cells: __ % eosinophils: __ % siderophages: __ % other cells: __ %

○ Microbiological analyses performed (check all that apply):

Bacterial culture

Pneumocystis jiroveci stain or PCR

Fungal analysis

Viral PCRs

Positive result(s): _____

*if several BAL were performed: results of the nearest to the ARDS diagnosis

Were immunological tests performed? Yes No

If yes, please check if the result is positive:

antinuclear antibodies

Antisynthetase antibodies

Anti-CCP antibody

ANCA

Rheumatoid factor

Other: _____

Was the patient taking pneumotoxic medications* before the development of ARDS? Yes No

If yes, provide name of the drugs (check all that apply)

- Amiodarone
- Methotrexate
- Hydrochlorothiazide
- Tyrosine kinase inhibitors
- Chemotherapy agents: _ _ _ _ _
- Other: _ _ _ _ _

* see www.pneumotox.com for more information

Was a final etiology for ARDS obtained? Yes

No

If yes, specify: _ _ _ _ _

--

Was a chest CT-scan performed? Yes No

If yes, day chest CT-scan performed: _ _ / _ _ / _ _ _ _

If yes, provide CT-scan patterns present (check all that apply):

- Honeycombing*
- Ground glass attenuation*
- Traction bronchiectasis*
- Interlobular septal thickening*
- Air space consolidation including atelectasis*
- Other* Specify: _ _ _ _ _

—

*if several CT were performed: results of the nearest to the ARDS diagnosis

DISCHARGE/DEATH

HOSPITAL OUTCOME

Hospital (or 90 day) Outcome (whichever event occurs first)

Alive Dead

Date of hospital discharge: __ / __ / ____