



The Patient Vitals are linked to the Patient Monitor Application running on the Learner Display. The following tables provide the ranges for each of the parameters as well as the available signal images for the waveforms.

### Parameter Ranges

Parameter	Range	Units
Heart Rate	0-300	BPM
Systolic	0-300	mmHg
Diastolic	0-200	mmHg
SpO <sub>2</sub>	0-100	%
EtCO <sub>2</sub>	0-150	mmHg
Temperature	21-50	°C

### Waveforms

Waveform	ECG	BP	SpO <sub>2</sub>	EtCO <sub>2</sub>
1	None	None	None	None
2	1st Degree Block	Normal	Normal	Cardiac Oscillations
3	2nd Degree Block (2:1)	Over Damped		Emphysema
4	AF (Atrial Fibrillation)	Under Damped		Normal
5	AF- Digoxin Effect			Pigtail
6	Asystole			Saturated Soda Lime
7	Atrial Flutter			Subsiding Relaxant
8	Atrial Flutter (3:1 Conduction)			
9	Bigeminy			
10	Complete Heart Block			

Waveform	ECG	BP	SpO <sub>2</sub>	EtCO <sub>2</sub>
11	Long QT			
12	Mild Hyperkalemia			
13	Normal Sinus			
14	Pacemaker with Capture			
15	Pacemaker without Capture			
16	Pulseless Ventricular Tachycardia 1			
17	Pulseless Ventricular Tachycardia 2			
18	Severe Hyperkalaemia			
19	ST Depression			
20	ST Elevation			
21	SVT (Supra Ventricular Tachycardia)			
22	Ventricular Standstill/p-Wave Asystole			
23	Ventricular Tachycardia 2			
24	Ventricular Tachycardia 3			

## Media and Images

Images	CT	ECG	X-Ray	Ultrasound
1	Lung Mass	Acute MI 1	Alveolar Hemorrhage	Acute AAA
2	Lymphangitis Carcinomatosis	Acute Pulmonary Embolus	ARDS	Acute AAA 1
3	Pericardial Effusion with Consolidation	Atrial Flutter	Aspergillosis	Pleural based metastatic deposits with associated effusion
4	Right Upper Lung Mass	Bifascicular	Aspiration Pneumonia	TAA Dissection
5	Trauma Acute Subdural Hematoma	Early Repolarization	Bronchiectasis	TAA Dissection 1

<b>Images</b>	<b>CT</b>	<b>ECG</b>	<b>X-Ray</b>	<b>Ultrasound</b>
6	Trauma Massive Head Injury	Digitalis	Bronchiectasis 2	9 y/o Appendicitis
7	Tuberculosis	First Degree Heart Block	COPD	AAA Cardiac Arrest
8		Flutter SVT	COPD 2	AAA long
9		Left Vent Hypertrophy in the presence of left anterior hemiblock	CXR Mass	Aortic Dissection
10		Normal ECG	Diaphragm Rupture	Cardiomyopathy
11		NSR with 1st degree AV block	Diffuse Alveolar Hemorrhage	Costochondral Separation
12		Right bundle branch block	Effusion	Heterogeneous and echogenic Thrombus in IJV
13		Sinus Bradycardia with PVC	Intubated Effusion	Hypovolemic
14		Sinus Bradycardia	Emphysema	Intussusception- long
15		Sinus Tachycardia with Complete heart block	GSW to back	Intussusception- trans
16		Sinus Tachycardia with premature atrial complexes	Hemopneumothorax	Left Atrial Tumor- Atrial Myxoma
17		Sinus Tachycardia	Lateral Decubitus	Left Sided Pleural Effusion with Associated Lung Collapse

<b>Images</b>	<b>CT</b>	<b>ECG</b>	<b>X-Ray</b>	<b>Ultrasound</b>
18		Sinus Tachycardia 2	Lung Mass	Lymphadenopathy
19		Sinus Tachycardia 3	Lung Mets	Massive PE and DVT
20			Mesothelioma	Massive Pulmonary Embolism and Cardiac Arrest
21			NG Tube in Bronchus	Massive Pulmonary Embolism and Cardiac Arrest 1
22			Normal	Mitral Stenosis from the Ultrasound
23			Normal 1	Pleural Based Metastatic Deposits with Associated Effusion
24			Pneumomediastinum	Pleural Effusion with Pericardial effusion with echocardiographic signs of tamponade
25			RMS intubation	Pleural Effusion with Pericardial effusion with echocardiographic signs of tamponade 1
26			RMS Intubation 1	Pleural Effusion with Fine Echogenic Debris
27			RT Tension Pneumothorax	
28			RUL pneumonia	
29			RUL pneumonia 1	
30			Severe ARDS Intubated	
31			Subcutaneous Emphysema	
32			Supine Pneumothorax	

<b>Images</b>	<b>CT</b>	<b>ECG</b>	<b>X-Ray</b>	<b>Ultrasound</b>
33			Tuberculosis	
34			Tuberculosis 2	
35			Tension Pneumothorax, broken clavicle	
36			Tension Pneumothorax	
37			Tension Pneumothorax Inspiration	
38			2 y/o Right Superior Mediastinal Soft Tissue Mass	
39			Bronchiolitis	
40			Bronchiolitis 1	
41			Diaphragmatic Hernia	
42			Infant Pneumothorax	
43			Left Diaphragm Hernia	
44			Pediatric Left Lung Aspiration	
45			Pediatric Pneumonia	
46			Pediatric Pneumonia 1	
47			Pediatric Asthma	

## Patient Labs

Lab / ABG	Blood Gas	Biochemistry	Hematology
1	pH	Na <sup>+</sup> (mEq/L)	Hb (g/dL)
2	pCO <sub>2</sub> (kPa)	K <sup>+</sup> (mEq/L)	WCC (10 <sup>3</sup> /μL)
3	pO <sub>2</sub> (kPa)	Urea (mg/dL)	PLT (10 <sup>3</sup> /μL)
4	Base Excess (mEq/L)	Creat. (mg/dL)	MCV (fL)
5	HCO <sub>3</sub> (mEq/L)	Mg <sup>2+</sup> (mg/dL)	HCT (%)
6	SaO <sub>2</sub> (%)	Adj.Ca <sup>2+</sup> (g/dL)	ESR (mm/h)
7	FiO <sub>2</sub> (%)	CRP (mg/dL)	D-Dimer (μg/mL)
8	Lactate (U/L)	Bicarb (mEq/L)	PT (s)
9		Trop T (ng/mL)	APTT (s)
10			Fibrinogen (mg/dL)
11			INR