



### **1. Patient Monitor**

Patient monitors are devices used to measure, record, and display various patient parameters such as heart rate and rhythm, SPO<sub>2</sub>, blood pressure, temperature, respiratory rate, blood pressure, blood oxygen saturation, et cetera to keep a track of the patient's health and provide them with high-quality health care.

### **2. What are Patient Monitor used for?**

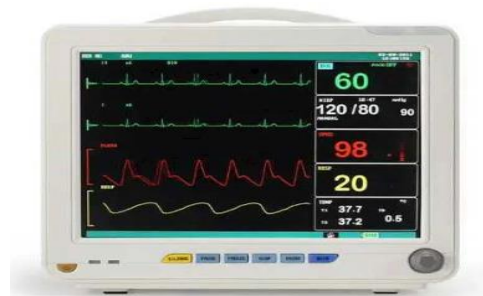
Patient monitors are used for continuous measurement of patient parameters such as heart rate and rhythm, respiratory rate, blood pressure, blood-oxygen saturation and many other parameters to take care of critically ill patients.

### **3. What are the types of Patient Monitor?**

The two broad types of patient monitoring systems are bedside patient monitoring systems and remote patient monitoring systems.

#### **▪ Bedside patient monitoring systems**

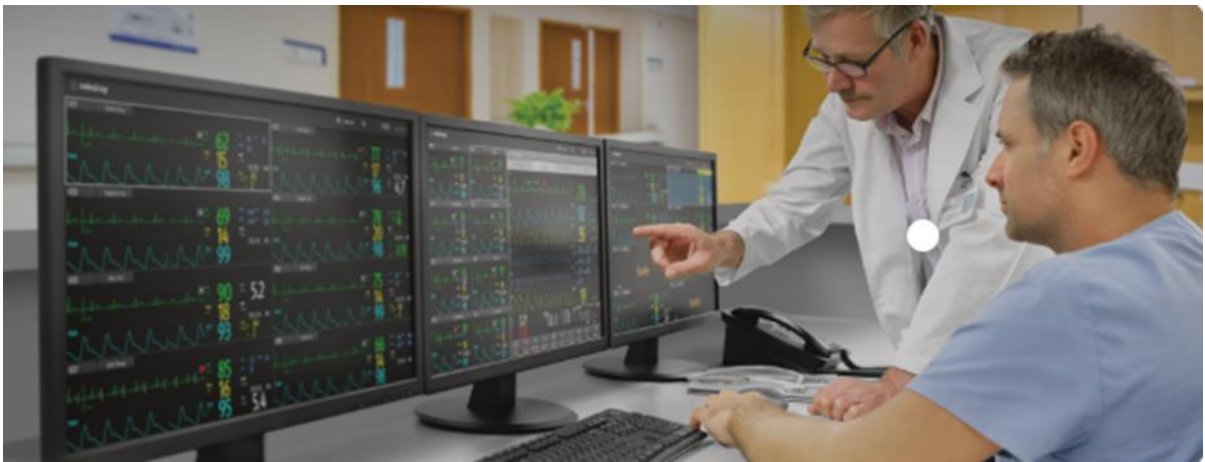
Bedside patient monitoring systems are also referred to as hospital patient monitoring systems. They are used within the hospitals to monitor patients in ER as well as intensive care settings. Bedside patient monitoring systems are not just required for patients in trauma but also for long-term patient monitoring for vital signs to prevent complications and to ensure full recovery.





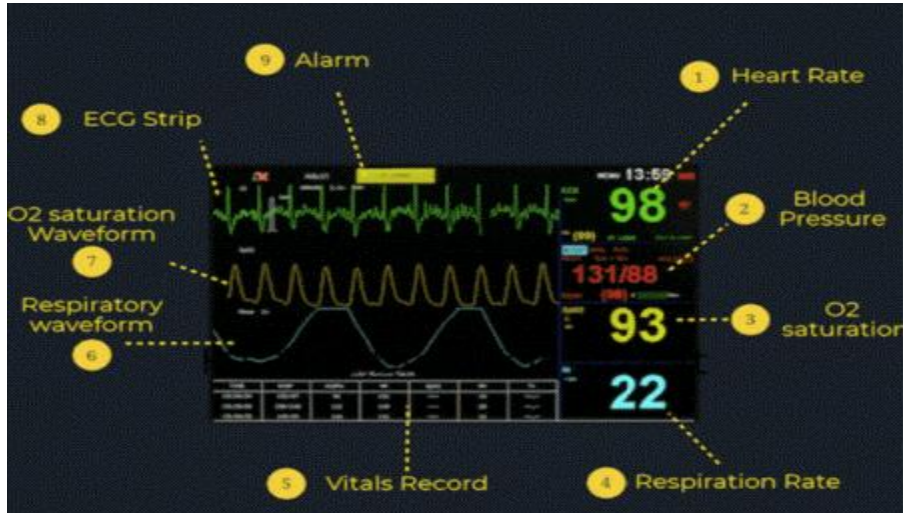
- **Central monitoring**

Central monitoring is a unique approach of monitoring clinical trial data that involves the collation of data from all trial sites in a remote, central location, where it is evaluated by sponsor personnel or representatives. This may involve teams that include clinical monitors, data managers, and statisticians.



**4. What are the components of patient monitoring?**

1. Alarm Indicator
2. Power Switch
3. ON-OFF Button
4. Print Button
5. Menu Button
6. NIBP START/STOP BUTTON



**5. What are the parameters that a patient monitor displays?**

The sensors connected to the patient's body carry the information that is displayed on the patient monitor. You can read the parameters such as heart rate, blood pressure, body temperature, oxygen saturation displayed on the machine. There are five basic parameters that today's patient monitors record and display:

- **Electrocardiogram (ECG):** electrodes are placed on the patient's body that are responsible for recording and amplifying the electrical impulses of the heart. Typically, the resting heart rate of a healthy adult is between 60-100 beats per minute.



- **Respiration (RESP):** controls the respiratory rate by measuring the thoracic impedance thanks to two of the electrodes used in the ECG. A resting adult typically breathes 12 to 16 times a minute. It is reported in breaths per minute.
- **Temperature (TEMP):** using a thermometer, it also shows the temperature that the patient has at all times.



- **Non-invasive pressure (NIBP):** Non-invasive blood pressure is obtained using an electronic sphygmomanometer, the cuff of which is placed on the patient's arm.





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- **Invasive pressure (IP):** by means of a sensitive catheter inserted into a patient's artery, his blood pressure can be achieved with a greater precision than that offered by non-invasive pressure.



- **Oxygen saturation (SpO<sub>2</sub>):** A pulse oximeter is placed on the patient's finger that emits light with two different wave densities to determine their blood oxygen level. It is the measure of the amount of oxygen in the patient's blood. The SpO<sub>2</sub> is normally 95-99 or 95-100.

