



JANAK®

Design for Connected Care

An advance architecture of integrated contactless continuous monitoring with early warning system and data analytics



Powered by



Healthcare outcomes can be impacted by continuous monitoring¹

Manual intermittent spot checks may lead to inferior outcomes²

01 Unnoticed Deterioration

Changes in vital signs occur several hours before the onset of symptoms and go unnoticed during intermittent spot-checks

02 Delayed intervention

Delayed intervention is associated with higher in-hospital mortality impacting patient outcomes

03 Detrimental Events

More than 50% of hospital cardiac arrests occur in wards and only 5% in ICU and many are preventable

04 Patient safety

Prone to fall injuries, developing pressure sores, pulmonary embolism, DVT and PE result in many preventable deaths each year

Early detection and intervention are the key³

66% of cardiac arrest patients show abnormal signs and symptoms up to 6 hours prior to cardiac arrest, but physicians are only notified 25% of the time

nursing staff may be unaware of abnormal vital signs in almost **50%** of patients in the general [i.e., lower acuity] ward as they struggle to manage time pressures and work interruptions throughout their shift

35% of at risk patients discharged from ICU die on the general ward

60% increase in hospital cost resulting from slower transfers to ICU due to late deterioration detection

1. <https://www.healthcatalyst.com/insights/top-7-healthcare-outcome-measures>; https://eprints.whiterose.ac.uk/130735/3/DowneyC_JJNS_Manuscript_Accepted.pdf;
The impact of continuous versus intermittent vital signs monitoring in hospitals: A systematic review and narrative synthesis; C.L.Downey a5.ChapmanaR.RandellbJ.M.BrowncD.G.Jaynea; International Journal of Nursing Studies; Volume 84, August 2018,
(<https://www.sciencedirect.com/science/article/abs/pii/S0020748918300981?via%3Dihub>)
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Patient outcomes in the field of nursing: A concept analysis; Int'l Journal of Nursing Sciences 22 Mar 2014; Ying Liu a , Kay Coalson Avant b , Yupin Aunguroch c , Xin-Yu Zhang a , Ping Jiang

2. Sun Z, et al., Postoperative hypoxemia is common and persistent: a prospective blinded/observational study. Anesth Analg; 121: 709-15 (2015).
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van Zanten, et al., Guideline bundles adherence and mortality in severe sepsis and septic shock. Crit Care Med; 42:1890-8 (2014).
Benjamin EJ, Virani SS, Callaway CW, et al.; American Heart Association Council on Epidemiology and Prevention Statistics Committee and Stroke Statistics Subcommittee. Heart Disease and Stroke Statistics-2018 Update: a report from the American Heart Association. Circulation. 2018;137(12):e67-e492. on Heart Rate under clinical supervision. #3 Granted out of 7 applied.

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Fuhrmann L, Lippert A, Perner A, Østergaard D. Incidence, staff awareness and mortality of patients at risk on general wards. Resuscitation. 2008; 77(3):325-30.
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Rowan KM, Kerr JH, Major E, McPherson K, Short A, Vessey MP. Intensive Care Society's APACHE II study in Britain and Ireland - I. Variations in case mix of adult admissions to general intensive care units and impact on outcome. British Medical Journal 1993; 307: 972-7
Young MP, Gooder VJ, McBride K, James B, Fisher ES. Inpatient transfers to the intensive care unit: delays are associated with increased mortality and morbidity. J Gen Intern Med. 2003; 18: 77-83

The **ib.digi** way powered by Dozee

Early Intervention

Reduced Human Errors

Improved Patient Compliance

Enhanced Nursing Efficiency

Reduced Healthcare Cost

An in-patient spends maximum time on a hospital bed. Hence designing a solution that can precisely integrate vital monitoring is a simple, effective and efficient method to improve healthcare accessibility and outcomes.

ib.digi is a connected care solution with powered by Dozee's continuous contactless remote patient monitoring and AI based early warning system, all packaged as seamless integrated care platform.

98.4%* Medical Grade Accuracy

Impactful Adoption of Connected Care Platform*

70% reduction in workload and stress of nurses.

2.5 hours time saved everyday/nurse.

80% reduction in time taken to record a patient's vital.

144 estimated lives saved annually per 100 ib.digi beds.

3700 additional patients that can be provided critical care annually/100 ib.digi bed.

Rs.2.3 crore annual direct savings per 100 ib.digi beds



*Unlocking the potential of Heart Rate under clinical supervision - study conducted by Sattva for Dozee

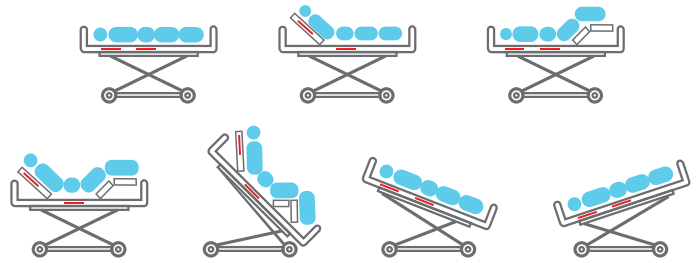
Award Winning Dozee Technology



Intelligence Inside

High Precision Engineering with Embedded Contact Free Sensors

ib.digi employs Dozee powered Ballistocardiography and Artificial Intelligence to convert micro vibrations produced by every heartbeat, respiration cycle, and body movement into meaningful bio-markers that help monitor trends of patient vitals seamlessly in every bed contouring

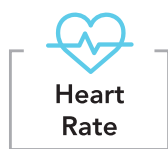


AI Technology

Dozee's AI engine converts raw data generated by ib.digi into meaningful biomarkers to help monitor trends that are analyzed further to detect early signs of patient deterioration.

Continuous Monitoring

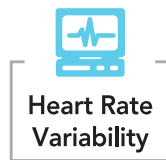
Contactless



Heart Rate



Respiration Rate



Heart Rate Variability



Bed Occupancy



Dozee NcBP™

Introducing world's first contactless blood Pressure

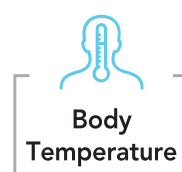
Accessory Based



NIBP



Oxygen Saturation



Body Temperature

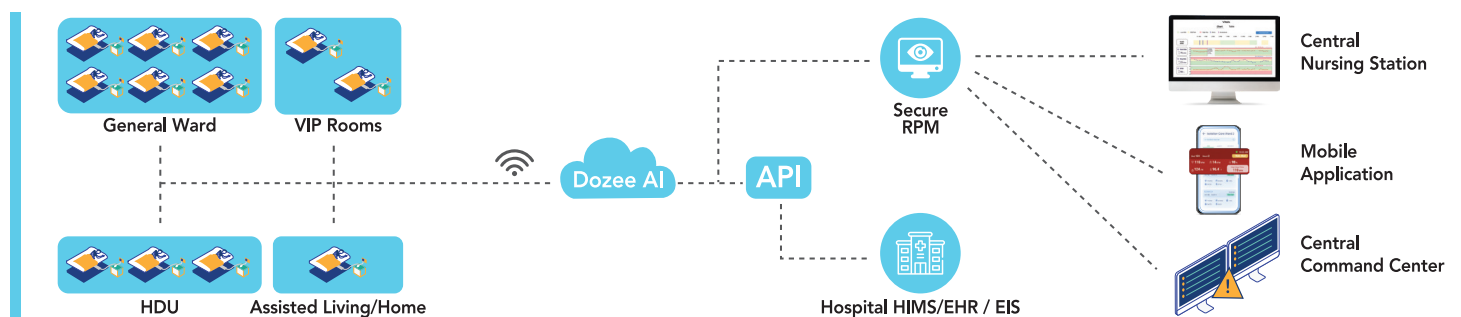


12 Lead ECG

Connected Care

HDU | Patient Rooms | Homes

Remote Continuous Monitoring with Secured Access



- 01 Web and iOS/Android based secured access enables continuous patient monitoring from virtually anywhere.
- 02 Deterioration alerts for preventive action
- 03 Customized access for data privacy
- 04 Centralized command center empowers monitoring 100+ patients in real-time, saving precious nursing hours
- 05 Daily Triage Report for the entire patient base to ensure timely medical intervention given to critical patients

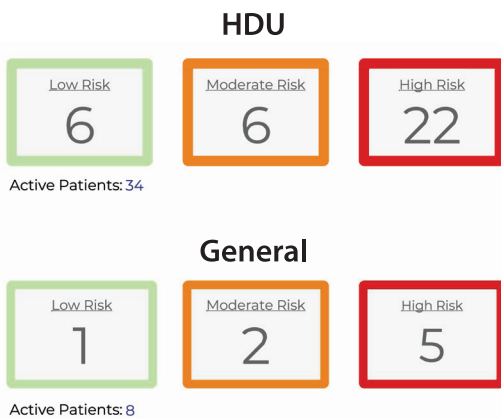
Early Warning System (EWS)

ib.digi is powered with Dozee's AI-driven Early Warning System, which employs a combination of physiological parameters and priority weights to predict the risk probability of clinical deterioration of patients.

EWS is an overall score for risk assessment of the physiological status of a person. It is a cumulative score of risk levels of physiological parameters like HR, RR, Spo2, Systolic BP and movement, which acts as an early predictor for possible physiological decline.

It can assist minimize/ decrease incidence of adverse events, optimize provider efficiency, improve outcomes and save healthcare rupee

Daily Hospital Reports | 14 April 2022, 07:00



Reference:

- 01 Prytherch et al. Resuscitation 2010. 81:932-937
- 02 Smith et al. Resuscitation 2013. 84:465-470

Risk Score for Vitals	0	1	2	3
Heart Rate (BPM)	61-90	91-100 51-60	101-120 40-50	>120 <40
Respiration Rate (RPM)	12-20	21-25 9-11	26-30 6-8	>30 <6
Oxygen Saturation (%)	95-100	93-94	88-92	<88
Systolic BP (mm Hg)	101-140	141-160 90-100	161-180 85-89	>180 <85
Temperature (Deg F)	96-98.5	98.5-100.5	100.5-102 94-96	>102 <94
Temperature (Deg C)	35.5-36.94	36.94-38.05	38.05-38.8 34.4-35.5	>38.8 <34.4
Movement	>5	0-4		

Customizable Smart Alerts

Vital parameters are tracked against that baseline on a daily basis. A trend of continuous deviation of the vitals against the baseline, generates an alert. This is an indication of possible health deterioration and needs attention.

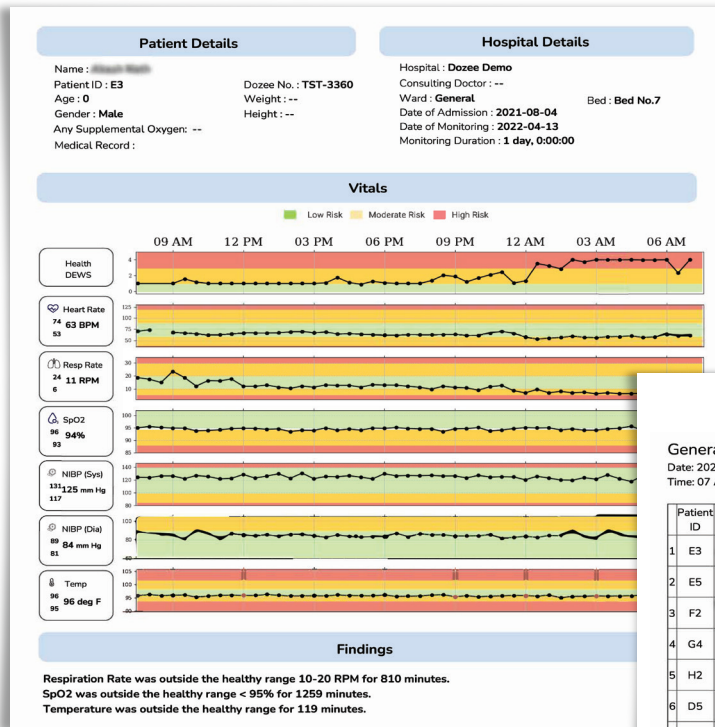
- 01 Silent on patient side to reduce anxiety
- 02 Scheduled based smart alerts to reduce alarm fatigue
- 03 Alarms can be acknowledged for notifying action taken





Dozee Hi-Tech Security system assures absolute confidentiality of patient data, archives and reports

Coherent, Insightful & Impactful Reports

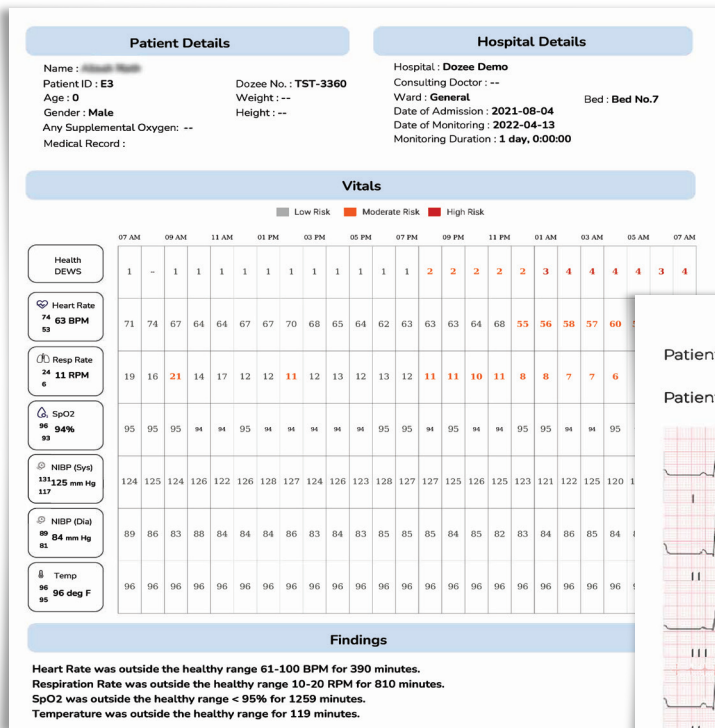


Patient Monitoring Report

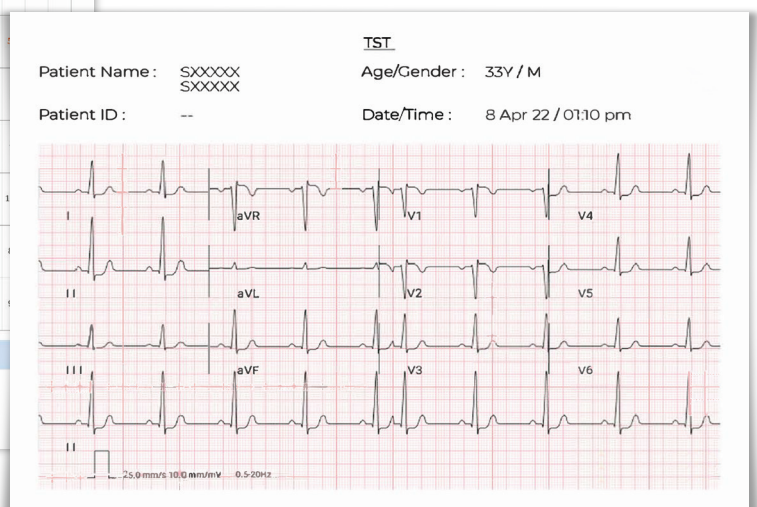
General
 Date: 2022-04-14
 Time: 07 AM

Patient ID	User	Dozee No. Bed	Risk Score	DEWS 24 hours	DEWS 8 hours	DEWS 3 hours	Vitals (Last 3 hours)
1	E3	TST-3360 Bed No.7	HIGH	1	3	3	HR - 60 BPM, RR - 8 RPM, SpO2 - 94%, Temperature - 96 Deg F, BP - 124 / 84
2	E5	TST-3364 Bed No.2	HIGH	1	1	1	HR - 61 BPM, RR - 9 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 123 / 84
3	F2	TST-3366 Bed No.4	HIGH	3	4	4	HR - 59 BPM, RR - 6 RPM, SpO2 - 95%, Temperature - 96 Deg F, BP - 126 / 83
4	G4	TST-3376 Bed No.1	HIGH	1	2	3	HR - 67 BPM, RR - 7 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 124 / 85
5	H2	TST-3375 Bed No.3	HIGH	1	1	1	HR - 61 BPM, RR - 9 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 123 / 85
6	D5	TST-3355 Bed No.10	MOD	1	1	1	HR - 61 BPM, RR - 9 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 125 / 83
7	G1	TST-3371 Bed No.5	MOD	1	2	2	HR - 67 BPM, RR - 7 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 122 / 84
8	B4	TST-3349 Bed No.9	LOW	1	1	1	HR - 64 BPM, RR - 12 RPM, SpO2 - 94%, Temperature - 95 Deg F, BP - 124 / 84

Patient Monitoring Report



Patient Monitoring Report



ECG Report

Value Added Features*



One touch key for Cardiac Chair, Auto CPR



Four section metallic perforated top



Full length polymer moulded split type safety side rails



SS heavy duty IV pole



Polymer moulded head & foot panels, easily removable without using any tools



Dual side manually operated CPR



Angle indicator for Backrest, Trendelenburg & Reverse Trendelenburg



Urine bag holder



Four corner safety rubber buffers



Inbuilt SMPS

Electrical Parameters*

Power In (Mains Power Supply)	Nominal 230 VAC	Electrical Shock Protection	Class 1
Operating Range	100 VAC to 240 VAC	Degree of Shock Protection	Type B
liquid Ingress Protection	50/60 Hz, Max 2A	Duty Cycle	10% (Two minutes for every eighteen minutes)
	IPX6		

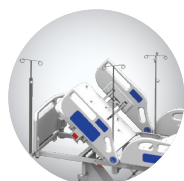
Safety Standards*

General safety for medical beds IEC 60601-2-52 | General safety for medical electrical equipment IEC 60601-1-1
EMI/EMC IEC 60601-1-2

Technical Specifications*

Overall Dimension*	2150 mm x 1020 mm (L x W)	Backrest**	0° - 70°
Platform Frame*	2080 mm x 960 mm (L x W)	Kneerest**	0° - 45°
Mattress Platform*	1890 mm x 860 mm (L x W)	Trendelenburg**	0° - 17°
Mattress Platform Height* (Without Mattress)	45 mm to 825 mm	Reverse Trendelendurg**	0° - 17°

Add-On Accessories*



Heavy Duty and Telescopic IV Pole



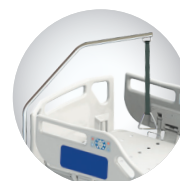
O2 Cylinder Cage



Modular Chart Holder



Orthopedic Traction Pulley



Heavy Duty SS Lifting Pole



Bed Extension#

Accessories and color shown in the picture may not be part of standard configuration. Technical alterations reserved in view of our continuous improvements. Midmark India Pvt. Ltd. is the licensed user of the trademark "Midmark India" and the logo. Reproduction of this catalogue in any form is liable for legal action.
* ±10 mm Engineering variation. ** ± 5° Engineering variation. ^When bed is configured with standard accessories. *Factory fitted. The product images shown are for illustrative purpose only and not be an exact representation of the product. Accessories shown in the product image may not be part of the standard configuration. # Bed model and configuration specific

World Class Safety and Standards



Because we care.®



JANAK®

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