

# Meeting today's healthcare challenges

Today's healthcare challenges have an immediate and direct impact on patient safety. The majority of Healthcare Organisations and Clinicians will identify with one or more of the below challenges within their own environment.

## Deteriorating Patients

Delay in Patient Escalation  
Pressure to speed up patient journey through the hospital

Alarm Fatigue

Avoidable Deaths

Availability of skilled Nursing Staff

Increasing Insurance Premiums

Visensia® The Safety Index™

provides a clinically proven solution meeting these challenges and improving overall patient safety.

# VIENSIA®

The Safety Index™

## Features

### Predicts Patient Deterioration

- Providing truly advanced early warning of critical instability

### Automated Alerts

- Highlighting a patient's move away from normality and the need for vigilance

### Single Channel Warnings

- Displayed alongside the vital sign data and VSI helping to reduce alarm fatigue

### Trend Data

- Including the Patient Trend Indicator, detailing the direction and rate of the VSI change

### Visensia Safety Index - VSI Contributions

- Displays each of the vital signs and their contribution to the VSI

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Results from one site when used with continuous vital sign monitoring



1. Hravnak et al. Critical Care Med 2011 Vol 39 (1) 65-72. Cardiorespiratory instability before and after implementing an integrated monitoring system and information held on file at OBS Medical Offices  
2. Hravnak et al. Arch Intern Med 2008 Vol 168 (12) 1300-8. Defining the incidence of Cardiorespiratory Instability in Patients in Stepdown  
3. Hravnak et al. Critical Care Med 2011 Vol 39 (1) 65-72. Cardiorespiratory instability before and after implementing an integrated monitoring system  
4. Tarassenko et al. 31st Annual International Conference of IEEE EMBS, Minneapolis, Minnesota, USA, September 2-6, 2009. Telemetry-based vital sign monitoring for ambulatory hospital patients

## Early Warning Scores - Current Challenges

- 6000 avoidable deaths in English hospitals each year due to the failure to recognise and respond appropriately to signs of deterioration
- Calculation errors were 11x more likely to result in under-scoring than over-scoring
- 16.5 hour delay in notification of the physician
- 462 inpatient cardiac arrests over a one-month period in England, Wales and Northern Ireland found that 75% showed signs of clinical deterioration before the event

1. A national early warning score for acutely ill patients (EMU) 2002. M4545200  
2. Using a Local Early Warning Scoring System as a Model for the Introduction of a National System. Stroke Med. 2012;11(2):146-151  
3. Standardised measurement of the Modified Early Warning Score results in enhanced implementation of a Rapid Response System: A quasi-experimental study. Resuscitation 93 (2014) 476-482  
4. National Confidential Enquiry into Patient Outcome and Death (NCEPOD). 2012

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- When used with periodic vital sign monitoring

Over a 4 year period there was a ...

- 37.5% decline of Code-Blue Responses (Patient Emergency) in the medical-surgical unit
- 34.5% reduction in mortality rates
- half day reduction in length of patient stay

Especially significant because there was a ...



Ref: St. Joseph Henry Oakland Hospital - Pontiac, USA 2014. Information held on file at OBS Medical

## Benefits

### Identifies crisis earlier

- Average 6.3 hours advance warning of critical instability
- Average 9.4 minutes earlier warning than single channel alarms

### Improves communication and workflow

- By displaying a visual trend and ranking for each of the five vital signs and their contribution to abnormality, Visensia enables caregivers to identify small trends before they become serious problems

### Accelerates response times

- Having a reliable pre-crisis alert tool for clinical teams can improve response time system-wide, leading to enhanced patient safety and outcomes

### Helps reduce alarm fatigue

- 79.3% Sensitivity ; 80.5% Specificity
- Only 1.6 false alerts per 100 hours of monitoring