



**Economic benefits for the hospital**

**USE OF SENSIUM HAS BEEN SHOWN TO LEAD TO**




**10%  
REDUCTION  
IN LENGTH OF STAY**




**TREATING MORE PATIENTS WITH THE SAME**

**RESULTING** **OR**



**45%<sup>1</sup>  
REDUCTION  
IN RE-ADMIT RATE**



**TREATING THE SAME PATIENTS WITH REDUCED COSTS**

**PUBLISHED LITERATURE<sup>2</sup> HAS SHOWN THAT UTILISING SENSIUM CAN RESULT IN SAVINGS OF £460 PER PATIENT AND £700K PER HOSPITAL WARD/YEAR**

**Clinically validated key benefits**

16 years of peer reviewed published literature has proven the following clinical benefits in addition to the economic benefits highlighted above:



**Patient Comfort<sup>3</sup>**

- **Comfortable**, lightweight, unobtrusive patch
- Reassurance of continuous monitoring
- Enhanced **sense of safety**



**Earlier intervention**

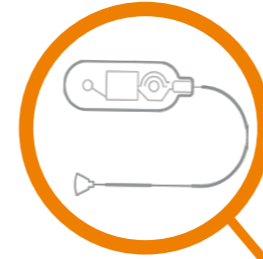
- A case series from five leading European hospitals showed that use of Sensium revealed the **first signs of deterioration** in conditions such as atrial fibrillation, sepsis and pyrexia, before manual vital observations<sup>4</sup>.
- A further publication found that use of Sensium led to treatment of SEPSIS **6 hours quicker** than the standard of care<sup>1</sup>

**Comprehensive deployment**

**Patch Features**

- Transmits HR, RR & axilla temperature every 2 minutes
- Seamless roaming - complete freedom of movement throughout bridged area
- Disposable – no cross-infection risk
- 5 day battery life
- 3 hours of data storage
- Light and comfortable for patients
- Uses standard ECG electrodes
- Shower-proof (IP54)

**Sensium® Patch**



**Bridge Features**

- Connection to hospital network:
  - Wi-Fi 802.11 b/g
  - Ethernet
- Connection to patch via ultra-low power wireless communication protocol
- Longest range connection
- Power supply: Power over Ethernet
- Maximum Patches per Bridge: 16
- Maximum Bridges per network: 250

**Sensium® Bridge**



**Link Features**

- User interface for hospital clinicians
- Links patient data to Sensium® Patch
- Notifications managed to fit existing work flow
- Configure smart notification algorithms
- Reporting data analytic options

**Sensium® Link (Server Software)**

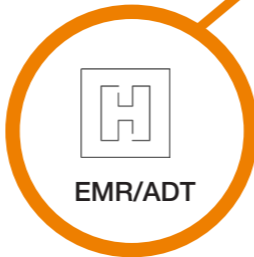


**App & Desktop Features**

- iOS® and Android® app
- Simple intuitive interface
- View & respond to notifications
- Summary of patient vitals
- Calculate Early Warning Score
- Manage patients (including escalation)
- View vital/ EWS history

**Regulatory Approvals /Clearances:**

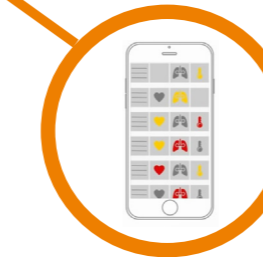
- FDA 510(k) cleared
- CE marked (class IIa)



**EMR/ADT**  
Connects to ADT & EMR Systems via HL7



Desktop application at the nurses station



Notifications and full functionality on apps

**For further information please contact:**

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Sensium® is a registered trade mark of Sensium Healthcare Ltd. Sensium Healthcare Ltd. is part of the group 'The Surgical Company'

1. C. Downey, R. Randell, J. Brown, D. Jayne: Continuous Versus Intermittent Vital Signs Monitoring Using a Wearable, Wireless Patch in Patients Admitted to Surgical Wards: Pilot Cluster Randomized Controlled Trial. Journal of Medical Internet Research. Journal of Medical Internet Research, December 2018  
 2. Javanbakht, Mehdi, Abtefeh Mashayekhi, Miranda Trevor, Mohsen Rezaei Hemami, Cardice L. Downey, Michael Branagan-Harris, and Jowan Atkinson. 2020. "Cost Utility Analysis Of Continuous And Intermittent Versus Intermittent Vital Signs Monitoring In Patients Admitted To Surgical Wards". Journal Of Medical Economics, 1-1. doi:10.1080/13696998.2020.1747474.  
 3. C.L. Downey, J.M. Brown, D.G. Jayne, R. Randell: Patient attitudes towards remote continuous vital signs monitoring on general surgery wards: An interview study. International Journal of Medical Informatics. 2018 114:52-56  
 4. Poshkuma L, Downey C, Vrochay M, Ghazali D, Jasti M, Ashrafian H et al. Remote wireless vital signs monitoring on the ward for early detection of deteriorating patients: A case series. International Journal of Nursing Studies. 2020;104:103515.

**EARLY DETECTION OF PATIENT DETERIORATION**

**Clinical early warning system**

Receive notifications of deterioration and calculate Early Warning Scores

**Earlier intervention**

Shown to lead to treatment of sepsis 6 hours quicker<sup>1</sup>

**Improved economic outcomes**

Shown to lead to savings of £460 per patient<sup>2</sup>



## Clinical early warning system

If a patient deteriorates between routine nurse observation rounds, the warning signs can go undetected for hours, leading to serious and costly consequences.

**Sensium®** is a discreet, wearable, wireless system to support nursing staff to monitor patient vital signs outside of high acuity areas. The disposable **Sensium®** patch accurately and reliably monitors and reports **heart rate**, **respiration rate** and **axillary temperature**, the **leading indicators of deterioration**, providing data every two minutes. Smart algorithms continuously process and analyse all patient data, generating targeted notifications of patient deterioration, efficiently bringing the nurse to the deteriorating patient.



“The fact that I know that this patch is monitoring me day and night makes me feel safe and secure. Even when a nurse isn’t with me I know that if I start to become unwell one will be notified.”

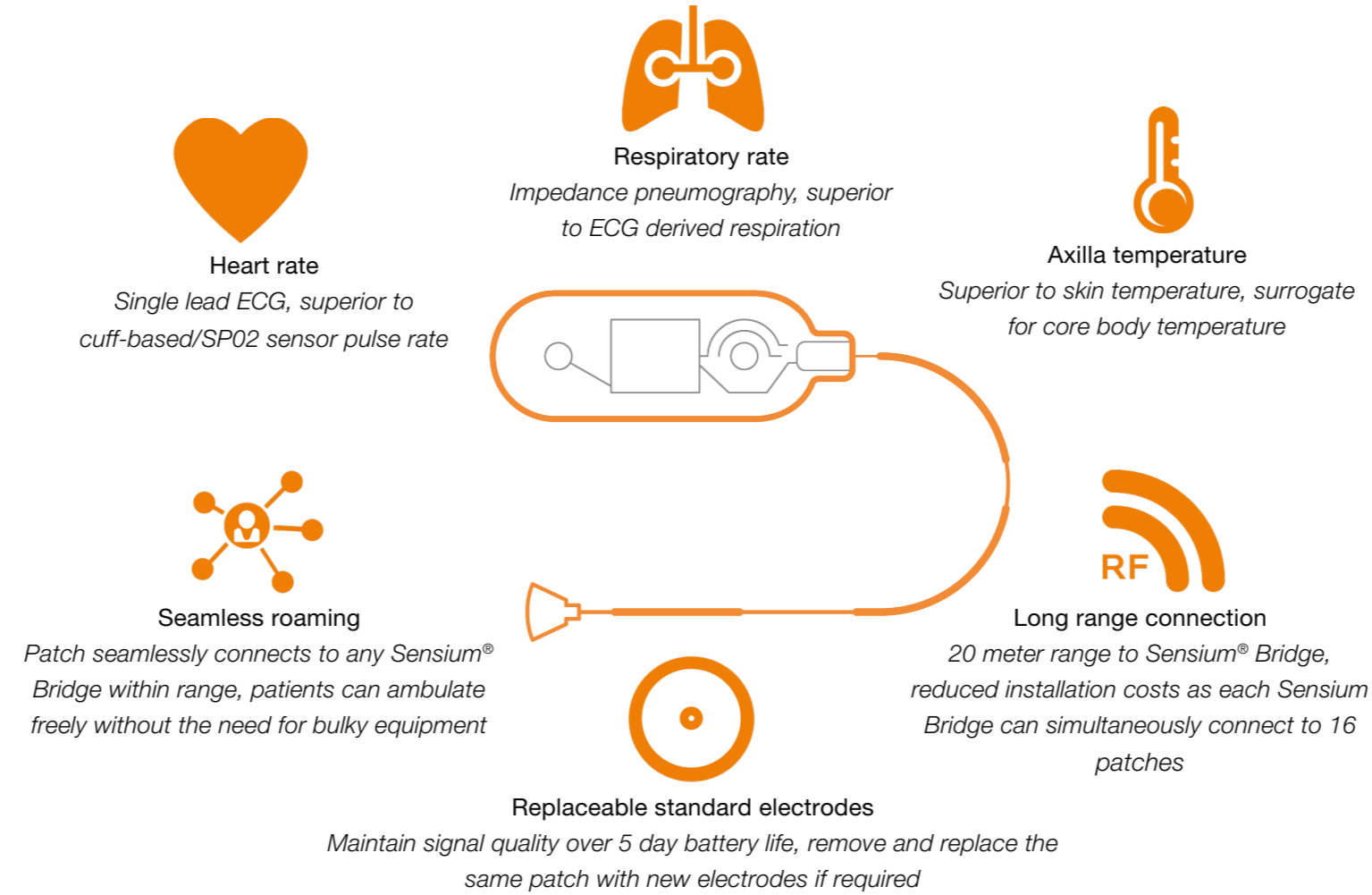
Sensium patient

## Compliance with NICE Guidance

The use of the **Sensium®** system supports your hospitals compliance with CG50 ‘Recognition of and response to acute illness in adults in hospital’.

**Sensium®** allows the continuous monitoring of patients who meet high risk criteria as defined by NG51 ‘Sepsis: recognition, diagnosis and early management’.

## Gold standard vital sign measurement



## Treat SEPSIS quicker

Early detection of sepsis is critical. Research<sup>1</sup> has shown that patients presenting evidence of sepsis and receiving continuous monitoring with the **Sensium®** Patch were administered antibiotics on average six hours faster than the standard of care.

“SENSIUM®’s recent trial has demonstrated the potential of such early warning systems, with patients in the Sensium® group being **treated on average 6 hours quicker** in the **presence of sepsis**. Anything that can be done to more quickly **identify and treat sepsis** has to be a good thing and will **lead to lives saved.**”

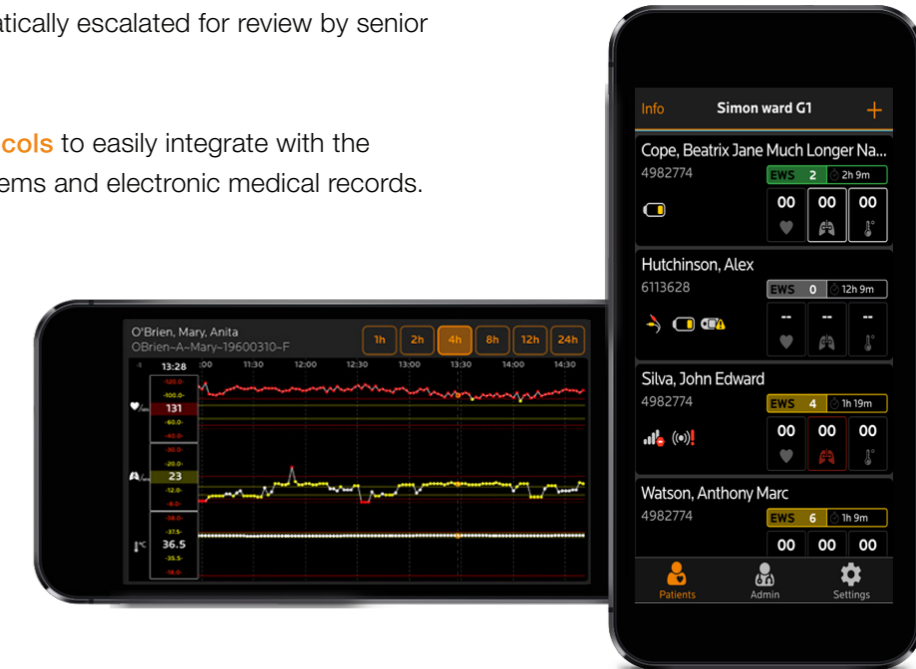
**Dr Ron Daniels, BEM**

CEO of the UK Sepsis Trust and Global Sepsis Alliance  
Clinical advisory to the World Health Organization

## Patient data when and where it is needed

Notifications of patient deterioration, patient vital history and current vital signs can be viewed at nursing stations or on the move using the **Sensium®** mobile app. If required, patients can be manually or automatically escalated for review by senior clinicians.

**Sensium®** uses industry standard **HL7 protocols** to easily integrate with the hospital admission, discharge & transfer systems and electronic medical records.



## Calculate Early Warning Scores

**Sensium®**'s E-Obs package allows the ability to enter additional patient data, in conjunction with pre-populated heart rate, respiratory rate and temperature values from the **Sensium®** patch in order to calculate an **Early Warning Score (EWS)** e.g. NEWS2 and clinical response.

The time until the next observation round is due is clearly displayed. The Sensium EWS and clinical responses are configurable to match your observation policy.

Configuration of the **Sensium®** EWS supports NEWS2 and the ‘Think Sepsis’ campaign.

