# Case study: Isansys Lifecare Ltd



#### **Company**

Isansys Lifecare Ltd

#### **Competition:**

Patient Safety and Patient

Monitoring / Improving

**Diagnosis and Treatment** 

Management of Cancer

#### Innovation:

The Patient Status Engine (PSE), continuous, wireless vital sign data acquisition and analysis platform delivered as a managed service to hospitals and other providers.

#### **Total award:**

£1,200,000

awarded for Phase 1 & 2 development stages

#### Savings to the NHS:

Estimated at £1-2 billion per annum

#### **Product availability:**

Generation 1 & Generation 2 currently available.

#### **SUMMARY**

Isansys Lifecare Limited is a new generation digital healthcare company that has developed an innovative, low cost and scalable patient monitoring platform. The Patient Status Engine (PSE) integrates a range of advanced medically certified wireless wearable vital sign sensors, with secure networking technologies and predictive analytics. Any (and every) patient can now be monitored continuously in hospital or at home.

The Isansys PSE addresses critical patient safety issues - reducing the number of avoidable deaths and adverse events in hospital, reducing length of stay and enabling new pathways to keep patients out of hospital in the first place.



### Case study:

## Isansys Lifecare Ltd



#### **OVERVIEW**

Isansys is a new generation digital healthcare company combining medical devices, healthcare IT and big data analytics to provide an innovative, low cost and scalable patient monitoring platform. The Patient Status Engine (PSE) integrates a range of advanced, medically certified, wireless wearable sensors, with secure networking technologies and predictive analytics to continuously collect multiple vital sign data simply, securely and automatically from patients, regardless of whether they are in hospital or at home. It analyses the data and delivers patient status indicators to a nurse station or call centre and via secure apps to clinical staff in any location.

The Isansys technology platform addresses critical patient safety issues that cost the NHS an estimated £5 billion annually. By significantly improving patient monitoring and providing more robust and timely early warning indicators, the PSE enables healthcare providers to reduce the number of in-hospital avoidable deaths and adverse events, and to discharge patients earlier and with greater confidence. By enabling critical care to be extended out of the hospital into the home, the PSE also supports new pathways to keep patients out of hospital in the first place, with subsequent benefits for patients and cost reductions for providers.

#### **PATIENT PERSPECTIVE**

Except for those in intensive care wards, most patients in UK hospitals are inadequately monitored. Even high dependency patients often fail to receive the necessary higher intensity monitoring due to a number of factors including lack of suitable beds and nursing resource. Patients in general wards are monitored at long (up to 8 hourly) intervals ("obs") during which time significant negative changes in a patient's status can occur. Such infrequent monitoring makes it almost impossible to identify trends that might have been able to predict the patient's deterioration.

It is not surprising that the majority of reported adverse events and avoidable deaths occur in general ward patients.

The Patient Status Engine provides a solution to all these issues, particularly for patients:

"With this system I can move about, feeling reassured that the doctors and nurses can continually check on my condition. I feel free and comfortable and safe."

#### **ECONOMIC IMPACT**

The economic impact of the Isansys platform is difficult to estimate but has the potential to be very significant. Of the estimated £5 billion costs to the NHS associated with patient safety, the adoption of the Patient Status Engine as standard care could reduce this amount by 50% or more. The cost of widespread adoption of the PSE is of the order of £1 billion leading to annual net saving of £1 – 2 billion.

Speaking of the added value of the SBRI funding, Isansys CEO Keith Errey said, "The SBRI funding has enabled us to rapidly re-engineer the PSE for scalability, lower cost manufacture and expanded functionality. It has also provided support for early stage clinical deployments, so that we now have a proven world-leading medical product that is gaining traction in export markets as well as the NHS, placing Isansys in a leading position in a rapidly developing multi-billion dollar global market."

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