



## Taking hospital acquired infections out of the equation

Why a risk-prediction approach to prevention really works



Patient safety to the fore

Patient acquired infections are headline-making. According to Public Health England statistics, antimicrobial resistance claims the lives of 5,000 people a year in the UK, though experts have argued the real figure is at least double that.<sup>1</sup> Of course, the issue can dent health authorities' reputations and put a real a real pressure on hospital budgets, but more importantly, Hospital Acquired Infections can result in:

- Patients suffering unnecessarily
- Episodes of care becoming protracted
- Additional hospital days and extra or unplanned treatment straining budgets
- Elevated patient mortality



A helping hand from analytics

Detecting the patterns of infections, their causes, risk prone behaviour and other factors at play, as well as uncovering optimal preventative actions, requires far deeper and faster insight than traditional clinical reviews offer. Data, from as wide a range of sources as possible, is the key. Drawing out answers from that data demands a dynamic, predictive modelling capability, that uses advanced analytical capabilities.

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<sup>1</sup> Figures reveal emergence of "pan-resistant" infections, The Telegraph, 26<sup>th</sup> April 2018



## Changing patient outcomes

The results have proven to be delivery of the highest safety standards and best practices through the sharing of data-based insights between healthcare leaders who are empowered to protect their patients more efficiently.



## Case study

### Hospital managers improving patient safety

They have access to significant volumes of clinical, reporting and administrative data. Their research into this problem also demonstrated the value of exploiting data to assist in preventing hospital acquired infection. They also wanted to share any findings across their hospital and others by documenting safety strategies.

The health authority started by developing a simulation and predictive model that evaluated how high the organisation's probability of violating the Working Environment Act was, based on a variety of different inputs. From there, the organisation was able to identify the right companies to bring in to support with enhanced infection supervision and control, at lower cost.

Using SAS® Analytics for Infections, the hospital managers were able to precisely identify patients at risk, prevent infections by changing habits, and increase patient safety. This integrated strategy reduced budget overruns, and improved care routines and procedures. Performance enhancements that in turn lead to well documented higher safety.



Learn how SAS® could transform your ability to manage hospital acquired infections.

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