



Business challenge

Going to hospital can be intimidating for young patients, whether going in for a routine examination or major surgery. Alder Hey Children's Hospital wanted to use technology to reduce patients' anxiety about their hospital experiences.

Transformation

In collaboration with the Science and Technology Facilities Council (STFC) Hartree Centre, Alder Hey is using IBM® Watson® technology to enhance communication and engagement between clinicians, young patients and their families. The technology will analyse anonymized data provided by patients to uncover insights that the hospital can then use to improve the way it cares for patients.



Michael Gleaves
Deputy Director,
Hartree Centre

Business benefits

Harnesses insights

that were previously hidden amongst large volumes of data

Empowers hospital staff

to provide personalised patient experiences

Creates a platform

to support potential patient flow optimisation and other new research projects

Alder Hey Children's Hospital

Using IBM Watson cognitive technology to enhance the patient experience

Founded in 1914 in the UK, Alder Hey Children's Hospital is one of the largest children's hospitals in Europe. Each year, it provides services for more than 275,000 patients, including cancer care, care for chronic conditions such as muscular dystrophy and epilepsy, surgery and trauma care. Alder Hey's 3,200 staff members serve patients within the organisation's new facility, "Alder Hey in the Park," which opened in 2015. Europe's first hospital in a park, the new facility provides a purpose-built, unique and world class healing environment for children and young people.

"We are...excited about applying these new computing techniques to help improve the experience and quality of care provided at Alder Hey."

—Michael Gleaves, Deputy Director, Hartree Centre



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A potentially intimidating experience

Whether it's for a routine examination, treatment of a chronic condition or surgery, going to hospital can be intimidating for young patients.

Alder Hey considered that fact when it built its new facility, taking care to keep the architecture and décor light and whimsical. But the organisation wanted to do more than make its facility welcoming—it wanted to make the entire hospital experience less stressful for patients and their families.

Iain Hennessey, paediatric surgeon and Clinical Director of Innovation at Alder Hey, puts it this way: “You can never underestimate how important it is that people are happy when they come to hospital. They need to feel secure and know what's going to happen to them. That's especially important in children. They don't like surprises.”



Iain Hennessey, paediatric surgeon and Clinical Director of Innovation, Alder Hey

As part of a ground-breaking collaboration with the STFC Hartree Centre, and with support from IBM Watson technology, Alder Hey

is hoping to keep surprises to a minimum for young patients by providing them with information tailored to their needs.

Michael Gleaves, Deputy Director at the Hartree Centre, explains: “Familiarising patients with the hospital and procedure they are about to undertake will help reduce the anxiety of patients and their parents or carers. Our aims are to improve the quality of the precious time patients have with clinical staff and extend the care before and after the patient visit.”

Personalisation helps reduce anxiety

To begin the project, the team from Alder Hey and the STFC Hartree Centre have been asking hundreds of patients and their parents a range of questions, covering everything from basic demographics to where they prefer to park, what they like to eat,

which games and films they enjoy, and how they want their rooms to look. All of this unstructured data is helping teach the IBM Watson platform about each patient's preferences, to empower clinicians to personalise patients' stays.

Together, experts from the Hartree Centre and IBM are using this information to train the Watson platform to anticipate and respond to questions from patients and families before they come into hospital and to harness information to respond to the individual needs of the young patients undertaking their hospital journeys.

Using this data, the IBM Watson platform will provide cognitive analytics that deliver insights that enable the hospital to – in essence – think, sense and feel what is happening within it. As the project progresses, Alder Hey plans to use the platform to identify clinical trends that could affect patient flow and potentially lead to cost savings. The hospital also hopes to use the IBM Watson platform to drive research projects by matching suitable patients with clinical studies. In future, patients and their families may also use a solution to manage chronic illnesses with interactive applications that alert them and their doctors when their symptoms require intervention.

Happier patients and better care

By harnessing insights from new and existing data, the IBM Watson platform's cognitive capabilities are helping empower Alder Hey to personalise the hospital experiences of young patients and their families. Hennessey says, "Helping our patients and their families prepare properly for coming into hospital will really reduce their anxiety and could mean we get them better and home faster."

With the solution, Alder Hey gains a cognitive platform that it can use to support further projects, including patient flow optimisation and clinical research projects, helping it on its journey to becoming one of the first cognitive hospitals in the UK. Michael Gleaves concludes: "We are extremely excited about applying these new computing techniques to help improve the experience and quality of care provided at Alder Hey Children's Hospital."

Solution components

- IBM® Watson®

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Take the next step

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