HUH Action Card App

Nurse-led use of technology to enable better care

Introduction

As we know, working in healthcare offers many challenges, some are managed well, and others we try our best to mitigate. What the HUH Action Card App does do, is provide up to date evidence based practice, accessible information to the hands of the medical and nursing staff, at a finger tips reach in a climate of staff rotation and development, evolving evidence bases and innovative digital technology. This is Homerton's story of the path to a digital health-tech app.

Background

Figure 1 - Initial Action Cards

The catalyst for the project came late in 2017 with a phone call from Margarida Pacheco, otherwise known as Sepsis Maggie (Sepsis CNS), at Homerton University Hospital, asking for some ChloraPrep teaching as part of the Sepsis 6 awareness project being rolled out in the Trust. The call was taken by Adam Murr, Territory Manager, who had recently seen a presentation to BD by Dr Ron Daniels, Chief Executive of the UK Sepsis Trust.

Whilst facilitating the training, Maggie asked Adam if BD could assist with an Action Card project, providing easy to access clinical information for nurses on pocket size cards.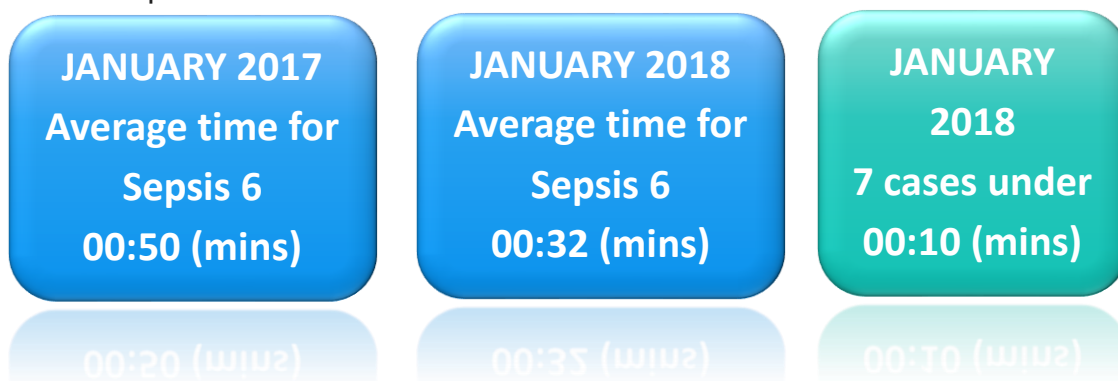 Initially for Sepsis alone, the response proved that the scope for more of these cards was huge. Eventually, the Action Cards involved not only Sepsis but also topics such as Medication Safety, Pressure Area Care, Safeguarding and Escalation Policies.

In January 2018, the Action Cards were designed by Creative Services at BD, and 1,500 were printed. Member's development team including the BD team launched them in A&E at Homerton Hospital in March 2018. The launch was attended by our CEO and members of C-Suite, alongside Senior Nurses, PDNs & Matrons from the main Hospital.

Figure 2 - Launch Event Poster

The Action Cards were a great success, and alongside other initiatives happening at the time, Homerton's Sepsis Data never looked better.

JANUARY 2017 Average time for Sepsis 6 00:50 (mins)	JANUARY 2018 Average time for Sepsis 6 00:32 (mins)	JANUARY 2018 7 cases under 00:10 (mins)

Action Cards to Smartphone App

Sepsis Maggie left for pastures new and Luke Brown, Senior Staff Nurse took on the project, with Hayley taking the reins from Adam at BD.
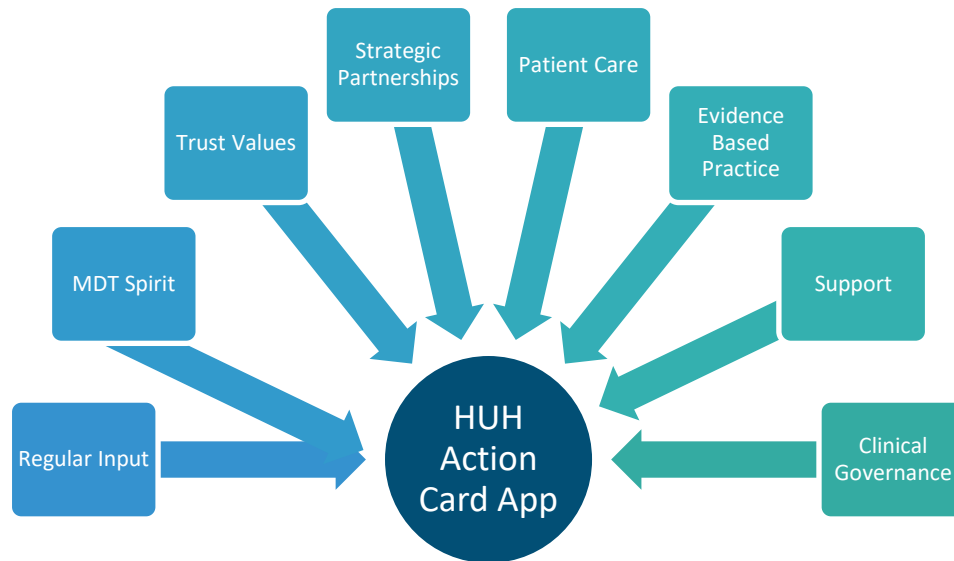

Figure 3- What consist of an app - Infographic

The progression to App based Action Cards had been mentioned from the very start of this project, due to the regular updating of the Evidence Based Clinical Guidelines that are featured on the Action Cards. In addition, the pocket cards were starting to look worn with their constant use in A&E. There was also a vision to add more content, for example links to web-based guidelines. Senior members of BD approached Production Bureau, and the App was developed.

Figure 4- Vision of the HUH Action Card App

Action Card App Pilot

In February 2019, the App was launched in A&E as a pilot, incorporating the Action Cards, web-based links (Micro-Guides, Medusa, Toxbase) & Hospital SOPs.

During the first few days of the pilot, patients were asked how they felt about Nurses using their phones to access clinical information, and providing they were informed there were no concerns.

The feedback from the Nurses (& Doctors) on A&E has been highly positive. Having clinical and hospital information that they use daily, ready to access at their fingertips, has significantly improved their working shifts, and the safety of their patients. They no longer need to leave their patients' bedside to access a computer, nor wait for one to become available.

The Action Card App has the potential to revolutionise the way health care providers go about their daily tasks. In conjunction with stakeholders, the Action Card App content was linked with incidents within the local Trust and also the Never Events around the UK, allowing this app to have wider usage. A culture of learning established within the app has been instilled in other departments, such as the Simulation Centre. By mapping these links, not only has the patient flow through departments been made more efficient, but levels of patient safety have increased.

Figure 5- Poster in Clinical Areas

As a result of the pilot in the A&E department, it was possible to see not only how many times the App was launched, but also which functions on the App were most viewed and used, with the Action Cards and Standard Operating Procedures (SOPs) most predominant.
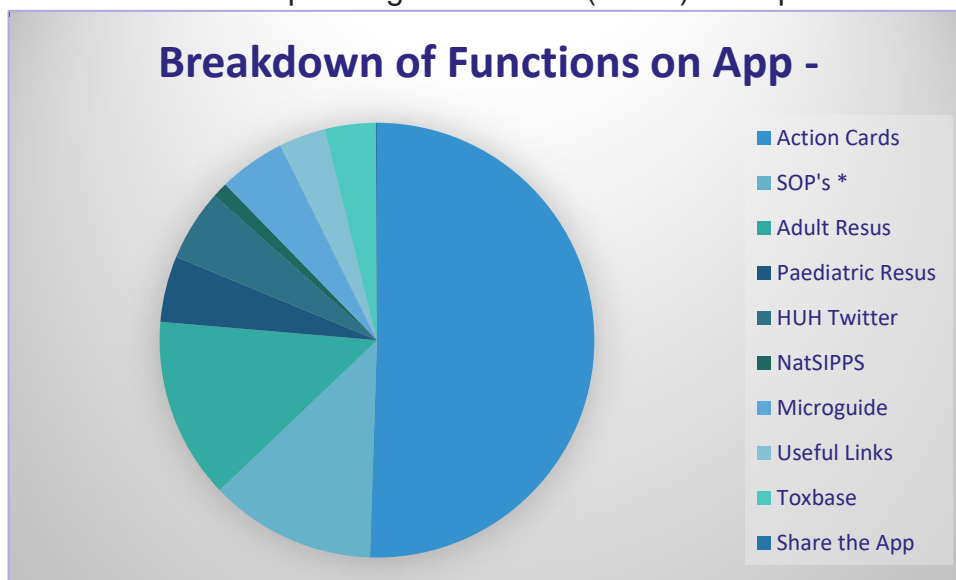

Breakdown of Functions on App -

- Action Cards
- SOP's *
- Adult Resus
- Paediatric Resus
- HUH Twitter
- NatSIPPS
- Microguide
- Useful Links
- Toxbase
- Share the App

Figure 6- Breakdown of Usage per function on HUH Action Card App

App Sessions
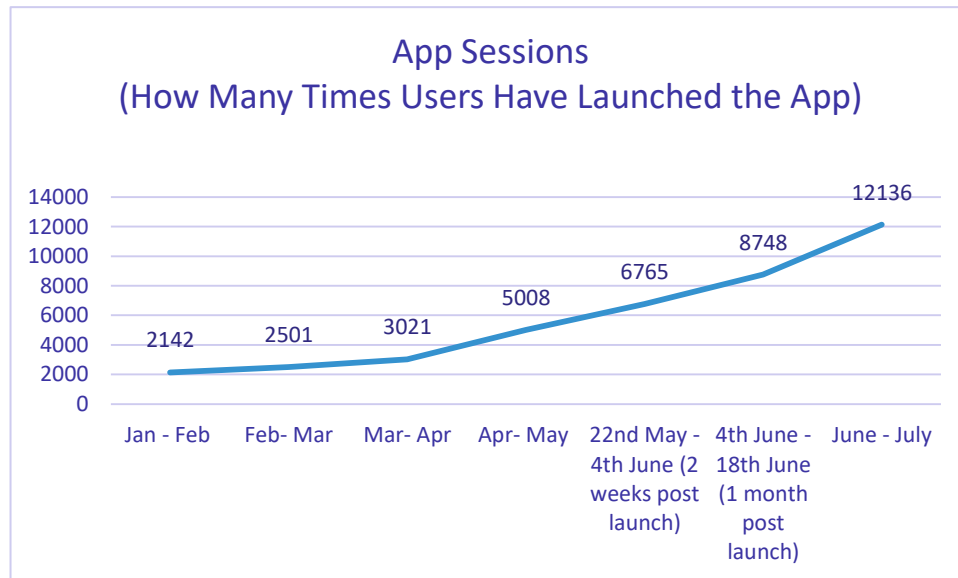## (How Many Times Users Have Launched the App)

Figure 7- Trend of App Sessions. NB. Apr- May = Trust Wide Launch Date

Behind the Scenes

Preparation for the Trust launch involved long hours and numerous meetings. The Trust meetings Luke Brown attended to secure the acceptance of the App across the Trust included: -

- · Governance
- · Informatics Steering Committee
- · Patient Safety Committee
- · Innovation Workshops
- · Communications Team

Disclaimer

The information on the HUH Action Card App is for use in Homerton University Hospital Foundation Trust ONLY. The information on the app is not permitted to be used in any other Trust.

If you have any feedback or require further information on the HUH Action Cards app please email: lukebrown1@nhs.net

Figure 9- Disclaimer

The App is cloud-based and requires employee email addresses to gain access, and with the recent launch of NHS Wi-Fi, there should be minimal access issues across the hospital wards and departments. A disclaimer on the App states that it can only be used at the Homerton University Hospital due to the nature of the SOPs.

Figure 8 - Using Technology to Improve Patient Care & Safety Speech for Nurses Day 2019 (Smartphone App Launch)

It was decided by Homerton's Chief Nurse, and Senior Nurse Emergency Services, that the App would be launched on Nurses Day in May, which included a speech by Luke Brown who shared *"the story of how Homerton managed to source,*

develop and distribute a smartphone App that has information that is evidence-based, increases patient safety and also ensures nurses better are resourced." The Action Card App

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BEST PARTNERSHIP SOLUTION IMPROVING PATIENT SAFETY

project has been submitted and was shortlisted for the HSJ Patient Safety Awards in the categories of *Best Partnership Solution in Patient Safety* & *Best Health-Tech Solution for Patient Safety*. The poster *Patient Safety and Preventing Never Events* has also been accepted, in the category of *Improving Processes & Outcomes*.

The Launch

The launch was on Wednesday May 15th 2019, with a stall set up in the Homerton Education Centre where all the events for Nurses Day 2019 are based. In addition, a team of Super-Users visited each department in the Trust to bring the App to those unable to make the event. As part of the "Ward Tour", packs were made for each department, consisting of the poster (Figure 6), Installation Instructions, Clinical Area Posters and the Standard Operating Procedure. Along with the packs, lanyards, pens and badges were all produced to raise awareness amongst patients. The stall displayed several A5 copies of the poster submitted to the HSJ Patient Safety Awards, and BD colleagues from Clinical and Marketing assisted with the App set up.

Figure 10 - Patient Safety & Preventing Never Events Poster - Patient Safety Awards 2019

Figure 12- Badge Produced for Action Card App

Figure 11- Lanyard Produced for the Action Card App

Social Media

Throughout this process, social media has been buzzing with enthusiasm around the App. It was used primarily to keep staff informed of the process and to promote the Trust-wide launch. In hindsight, without social media, particularly Twitter, the hype around the app would not have happened. Below are some examples of this:

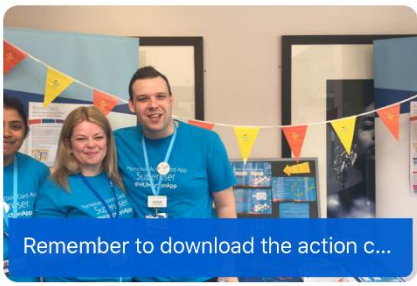**@HUHActionApp**
#HUHActionCardApp

Sana
@Allonsy_SM

Replying to @psychinformatic

Thank you 🙏 but again done to the amazing team @NHSHomerton @HUHActionApp @jeanlyon44 @lukeybrown1991 for helping to spread good practice and safe care in #delirium across the trust for all AHPs

14:38 · 17/05/2019 · Twitter for iPhone

BD
@BDandCo

It has been exciting to stand with @NHSHomerton this week for the launch of its new @HUHActionApp. Empowering staff to help improve #patientsafety through the use of novel technologies; this is a great example of what #partnership and #innovation can achieve in healthcare!

Homerton ED
@EDHomerton

Replying to @HUHActionApp @HSJptsafety and 8 others

Whoohoo!!!! Well done everyone! Fantastic news!! 👍

06:58 · 17/05/2019 · Twitter for iPhone

Homerton Maternity
@huhmaternity

April and Hayley from @HUHActionApp which launches today showing us how to use it. Excited to start using it in practice. Great to have a homegrown app to help us

09:53 · 15/05/2019 · Twitter for iPhone

Homerton IPC
@HomertonIPC

Really thrilled about the @NHSHomerton's @HUHActionApp as @lukeybrown1991 convinces one of our ICNs @FeignedMischief to sign up. @BDandCo @CrispMaggie #HomertonNursesDay #HappyNursesWeek

Homerton Preceptorship
@HUHPreceptor

Remember to download the action c...

10:38 · 15/05/2019 · Twitter for iPhone

The Launch in Pictures

The Future

The Action Card App has so much potential with regards to content. The Simulation Team at HUH are interested in embedding simulation videos, along with other teaching materials supporting their already extensive course list; Maternity and Community Teams are also currently working on their Action Cards and solidifying the link to their incidents locally and nationally. Our Resilience Manager is keen to incorporate the Major Incident Action Cards within the App, and also to use it as a 'Notification of Incident' tool, so that a 'push notification' can be activated should one occur. In terms of A&E, considering the App's ability to condense information on a departmental basis, the decision has been made to move away from the intranet and utilise the App to its full potential, keeping only a 'skeleton' intranet page for the department.

There has been significant interest in neighbouring hospitals and trusts regarding the Action Card App, in addition with the Ambulance Service also expressing interests. Ultimately this will be a decision for BD UK to make, but Homerton will be happy to support and provide services as necessary. Trusts around London have expressed interest in the App and are currently in talks for this to take place.

Evidence Base of a Smartphone App

The NHS Long Term Plan clearly emphasises the need for technologies within healthcare, with our current Secretary of State, Matt Hancock, stating that NHS providers need to address outdated and obstructive technologies, and be able to link with a variety of systems to increase efficiency, data sharing and be able to cope with the ever increasing demand of the NHS. (Dowding, 2019)

"A modern technical architecture for the health and care service has huge potential to deliver better services and to unlock our innovations. We want this approach to empower the country's best innovators – inside and outside the NHS – and we want to hear from staff, experts and suppliers to ensure our standards will deliver the most advanced health and care service in the world" *(Matt Hancock, October 2018, https://www.gov.uk/government/news/matt-hancock-launches-tech-vision-to-build-the-most-advanced-health-and-care-system-in-the-world)*

A survey conducted by Samsung & Digital Health Intelligence interviewed healthcare IT leaders, and concluded that using mobile devices demonstrated increased efficiency and patient safety. It also, however, identified some obstacles, including finance, security concerns and poor connectivity or infrastructure issues.

For the HUHS Action Card App, no patient details are going to be used in the App, as this is a clinical decision tool. In addition, security of the information on the App was reinforced, and addressed by the App developers according to the NICE Guidance of 2019 (Accessible via https://www.medcityhq.com/wp-content/uploads/2019/03/digital-evidence-standards-framework.pdf)

Considerations were also addressed with the introduction of the new NHS WiFi, meaning all areas of Homerton University Hospital have access to the internet via smartphones.

A further consideration was regarding the usability of a smartphone App, particularly by nursing professionals. It is evident that NHS Trusts across the UK are using more technology. There have been some reservations with regards to the IT skills of some nursing teams, to which the RCN has responded with their campaign "Every Nurse an E-Nurse". It was concluded that nursing and midwifery staff are leading the way with enhanced technology, but the need for training at a local level according to policies and protocols needs to be established in line with their local technologies. (RCN, Every Nurse an E-nurse, 2018).

A Personal Perspective – Luke Brown (Senior Staff Nurse)

In Homerton we have been very lucky with technology, with EPR systems for documentation of patient care, in addition to RiO and the Intranet. However, information gathering on a topic is difficult, with intranet systems clunky, slow and not user friendly. The Action Card App reduces this, with all information accessible at the fingertips, at a moment's notice. With the Homerton also having installed the NHS Wi-Fi across the Trust, all areas have the potential to access the internet.

Initially this project was aimed at nursing staff becoming more informed practitioners, by learning from mistakes not only locally, but also on a national scale. However, it has become exponentially more than this, with specialties and Medical staff becoming more and more intrigued about the App and how it could benefit their working days and nights.

Being a Band 6 in an A&E Department and integrating this into a Trust has been very difficult. To put this into context, when working clinically in a specific department, you often work in a "bubble" but you are aware there are various stakeholder meetings, but generally off the radar. This is where my managers come in, who have a vast knowledge and understanding of the meetings, and their remits therefore guidance from their expertise was paramount, however that didn't stop us from encountering difficulties getting traction and sometimes working our timetable to the bigger picture. My managers often needed to doorstep senior members of the Trust so that we could inform them face to face what an asset an innovation like this could be. With the collaboration of BD UK & Production Bureau, we have managed to source, develop and integrate a smartphone App into practice, with virtually no cost to the Trust initially or going forward due to the enthusiasm and drive of the professionals we collaborate with to make our patients safer. Admittedly, this is a trial with a potential view to going to other Trusts, but without ideas like this, we would still be using the mundane, slow and undynamic systems that we currently have.

What separates this App from others on the market is that it is specific to the Trust. Therefore, we can have the best of both worlds - national policies i.e. NICE Guidance, as well as local Trust policies and Standard Operating Procedures. In addition, the Action Cards are developed by the local MDT, meaning that there is not just a senior person dictating the policies, it is evidence-based information coming directly from the relevant sources.

By completing such a project like this, you really get a feel of how much your managers trust and value you as a professional. A great deal of pressure was exerted on a personal level to make sure that this doesn't fail, but having a strong, supporting and forward-thinking team supporting you is vital in a process that can be a minefield.

From my point of view, it's quite interesting to see the difference junior members of staff can make, with this project being integrated from the "ground up" with input from grass-roots nursing. This has allowed the project to be viewed differently, without managers informing the staff, but a colleague or peer doing the work alongside the MDT. I feel this has led to a sense of a teamwork

or comradeship, meaning colleagues have been much more receptive.

To be asked by the Chief Nurse at HUH to present a speech on Technology and how it relates to patient care and safety was the big highlight of the whole experience, not only doing the background research, but also being able to speak passionately (I think it came across that way), about the App that I feel the team have been living and breathing for the past 9 months. Bringing everything together for the launch was challenging, but I think the continued development of the App will be even more challenging, making sure that we keep the momentum, moving towards our phase 2 involving Maternity, Paediatrics and Community. With the continued support and driving force, I think the App can only get bigger and better, until we reach a point where we are fully integrating and using this in practice.

With thanks to all those involved at Homerton Emergency Department, BD UK – Hayley, Adam, Simon and the rest of the team! and finally to Production Bureau.