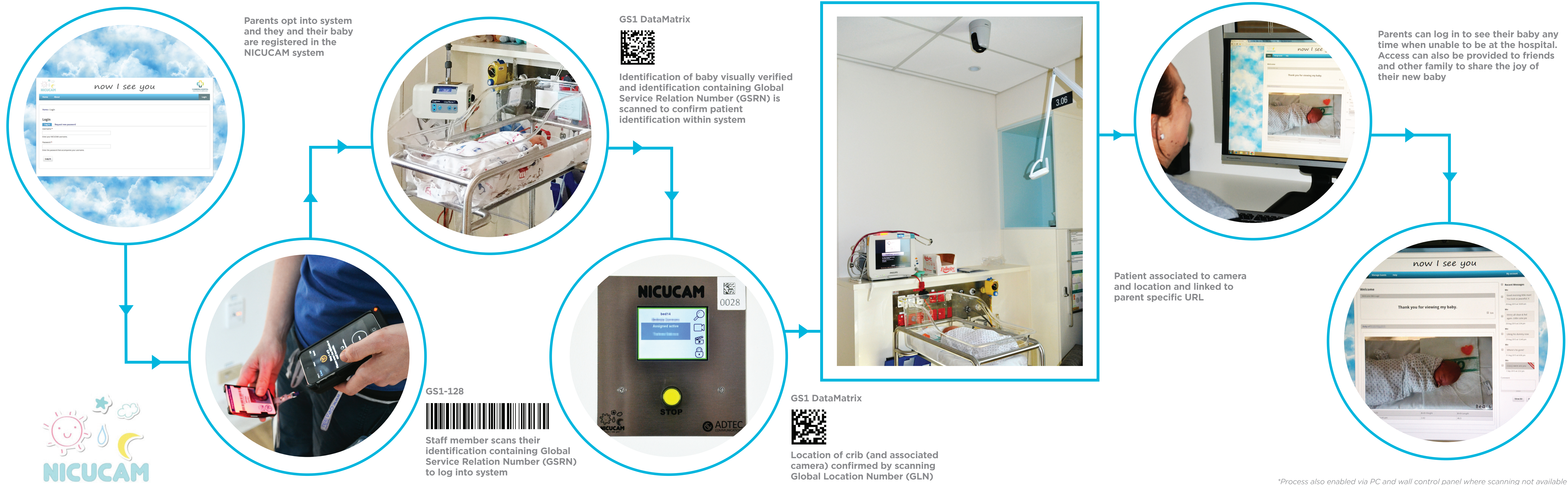


The Centenary Hospital for Women and Children (CHWC) opened in 2012 within The Canberra Hospital (TCH) campus, and has ~600 beds catering to women and children including a leading specialist Neonatal unit. As a part of ACT Health, CHWC is also a teaching hospital across many areas of specialty, including paediatric and neonatology. The Department of Neonatology consists of 120 staff members (full time equivalent).

Over the past 12-18 months GS1 Australia has been working closely with ACT Health on the development of a GS1 standards framework to enable improvements in patient safety, system interoperability, procurement and supply chain advances amongst other key functions. This case study showcases one of the projects to implement GS1 standards across ACT Health, the Canberra Hospital and Centenary Hospital for Women and Children.



Challenge

The Neonatal Intensive Care Unit (NICU) and Special Care Nursery (SCN) at Centenary Hospital for Women and Children (CHWC) admit more than 600 babies per year. Of this number more than 30% do not reside in the ACT, some reside more than 800km away and therefore regular visitations are often difficult especially where babies have periods of prolonged stay.

It is difficult but important for parents to remain connected to baby for early parent-infant bonding, even under circumstances such as this, therefore when the new hospital was built the opportunity was taken to use technology to help parents and babies stay connected.

Solution

The solution has various iterations, however through years of working with GS1, ACT Health and The Canberra Hospital (TCH) identified that their systems would improve in process and security if GS1 standards were implemented for key identifiers.

The implementation started with use of Global Location Numbers (GLN) to identify the location of the Camera/Cot in which the baby was located. They have recently also implemented Global Service Relation Numbers (GSRN) for both Subject of Care and for Provider of Care to complete the identification loop. These numbers are captured using Automatic Identification and Data Capture (AIDC) in a mixture of GS1-128 and GS1-DataMatrix barcodes.

This solution leverages technology integration from ADTEC Communications and hardware from Fujitsu. It relies on AIDC to scan health provider identification, patient identification followed by patient location as the means for enabling a child to be viewed remotely by its parents. As a backup there is also a web based solution.

Results

GS1 standards provided a solution for reducing the risk of misidentification or mismatched location of a baby by removing manual staff processes and systemised checks within the processes.

This in turn

- Enhanced patient security by aiding location visibility
- Positive clinical response/outcomes through streamlined process
- Increased efficiency of staff processes
- Aided the bonding between parent and child
- Improved quality of care for family and patient

The Future

The next project planned within the NICU and SCN is for enabling tracking/matching of Expressed Breast Milk (EBM) to systemise greater security of storage and checking of use of correct EBM (non-milk bank environment).

Call to Action

Hospitals are encouraged to learn from the findings and implementations of ACT Health and apply GS1 standards into their own jurisdictions in order to automate identification, monitoring and management of neonatal care.



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