# Introducing the UNIVERSAL Location Tag

Convert Technologies are seeking NHS Trust partners, who are interested in digitising the 'full' patient journey, in order to provide the KPIs necessary to monitor A&E performance against the National standards.

## FROM 'KERBSIDE TO BEDSIDE'

Track and monitor your inpatient's care journey from 'kerbside to beside' with Convert's UNIVERSAL Location Tag. With rising emergency admissions placing increasing pressure on available resources, knowing precisely where, and for how long a patient has been in the hospital system, is key to providing a barometer for overall performance levels of the NHS and Social Care system.

For example, the number of 'trolley waits' can be affected by variation in how different hospitals arrive at (and record the time of) the 'decision to admit'. Because of this, NHS Digital has begun to produce data on the number of patients who spend a total of 12 hours or more in A&E. The UNIVERSAL Location Tag operates in support of that initiative, using location data capabilities at its core.

*Fig 1. UNIVERSAL Location Tag Range*

## BENEFITS OF DATA COLLECTION

Once the tag data has been uploaded and harvested at the end of each patient 'journey', the resulting statistics can be used to provide information to the key stakeholders, to highlight Accident and Emergency KPIs, and more importantly, demonstrate how they can be monitored and analysed over time. Critically, they enable commissioners and NHS England to monitor performance against the national standard.

## KEY FEATURES & BENEFITS

- Includes a broad range of sensors for your potential IoT needs, including an accelerometer with customisable features such as step counter, tap-detector, wrist wear wake-up.
- Pressure sensor, useful for altitude detection and indicating which floor a patient is on.
- Universal Tag is powered with an easily replaced coin-cell battery built into a water-proof case with a small footprint, multiple colours and mounting options. Wrist-worn is ideal for this type of application.
- Built in security and all location / duration data is automatically captured and anonymised.
- Extremely light infrastructure requirements.

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# Emergency Care Pathway: Monitoring patient location and waiting times throughout A&E.

## KERBSIDE AMBULANCE

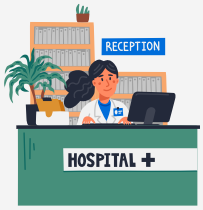
'Decision to admit' is made by the ambulance team - Patient is fitted with our Universal Tag (wristband). Patient is taken to the nearest hospital.

- Patient's unique Tag ID helps establish GPS location at the scene
- Date/Time stamp applied
- Clock starts ticking as soon as the ambulance sets off for the hospital

15 min

35 min

- Universal Tag captures location & waiting time data
- Data saved in flash memory for retrieval and analysis later




## ARRIVAL AT HOSPITAL EMERGENCY DEPT.

Register patient and wait for assessment. Walk-ins also provided with a 'Universal Tag' then take a seat in the Waiting Area.

## ASSESSMENT

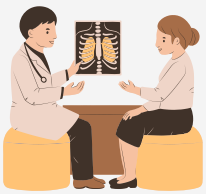
Nurse determines nature and urgency of patient's condition.

- Triage determines which 'zone' the patient is directed to for appropriate treatment
- To streamline the patient's journey, some investigations may start here

50 min

60 min

- Immediate treatment or close observation and support
- May need to wait for treatment or further assessment by an Emergency Doctor
- Patient is seen for their injury



## TREATMENT

Treatment path determined by nature / urgency of condition. E.g., Resuscitation, Majors, Urgent Care, Injuries etc.

## OUTCOME

After treatment patient will be either transferred, discharged, or admitted to hospital. A short stay in an Observation Unit is also a possibility.

## STATISTICAL ANALYSIS

- End-to-end patient journey waiting times
- Average waiting times by department
- Graphs/charts showing patient heat map
- AI modelling and more...

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