Graphnet
Integrating Care

Patient engagement

Graphnet is part of SystemC& Graphnet Care Alliance

Our patient engagement solutions use leading technology to help redesign care pathways and improve the quality of life for patients with or at risk of long-term, complex or life-limiting conditions. This is achieved at the same time as delivering efficiency and cost-saving opportunities for care providers.

Our solutions include personal health records, record sharing, electronic workflows and collaboration, and clinical dashboards – and are combined with remote monitoring, alerting, condition-specific apps and wearables to support new models of care for specific groups of patients.

Our patient engagement solutions build on our integrated care record and population health platform to support redesigned care pathways and the transformation of care delivery.

The base building block is the CareCentric shared record. This brings together information from GPs, social care providers, acute, mental health and community trusts into a single, unified record and provides care planning support.

Our population health platform then uses the rich data held in CareCentric to produce in-depth insight at the population, cohort or individual level.

This insight drives actions such as enrolling identified individuals onto a remote monitoring programme, where patients can self-record using the myCareCentric Personal Health Record (PHR).

In addition, analytical tools measure the impact of interventions and the results are fed back into CareCentric, closing the loop and creating a 360 degree solution.

Using myCareCentric PHR, patients can access, view and contribute to their records and services.

The myCareCentric range of condition-specific mobile apps enable patients and other service users to contribute information in a range of innovative ways, including:

- Wearable technologies gathering personal data such as sleep patterns, exercise, heart rate.
- Remote monitoring devices (e.g.pulse oximeters)
- Other health and lifestyle apps
- Personal goal setting, reminders and detailed personal content that meets and exceeds PRSB guidance
- Customised condition/problem specific assessments and forms, symptom diary, questionnaires, mood assessments, dietary information and medication compliance.

This is combined with standard shared care record data such as test results and visit outcomes so patients can be monitored and managed remotely. Teams are alerted when conditions change and care plans can be set or amended accordingly.

Example groups of patients for new models of care applications are Covid positive patients, individuals with epilepsy, congestive heart failure, diabetes, frailty, COPD, obesity, undergoing cancer treatment and mental health problems such as dementia and depression. Other examples include the Maternity Care module to allow pregnant women with hypertension and/or diabetes to manage their health in close collaboration with the care teams.

Our solutions

Our solutions enable care professionals to use risk stratification to identify groups of patients with specified conditions, or they can load existing registers.

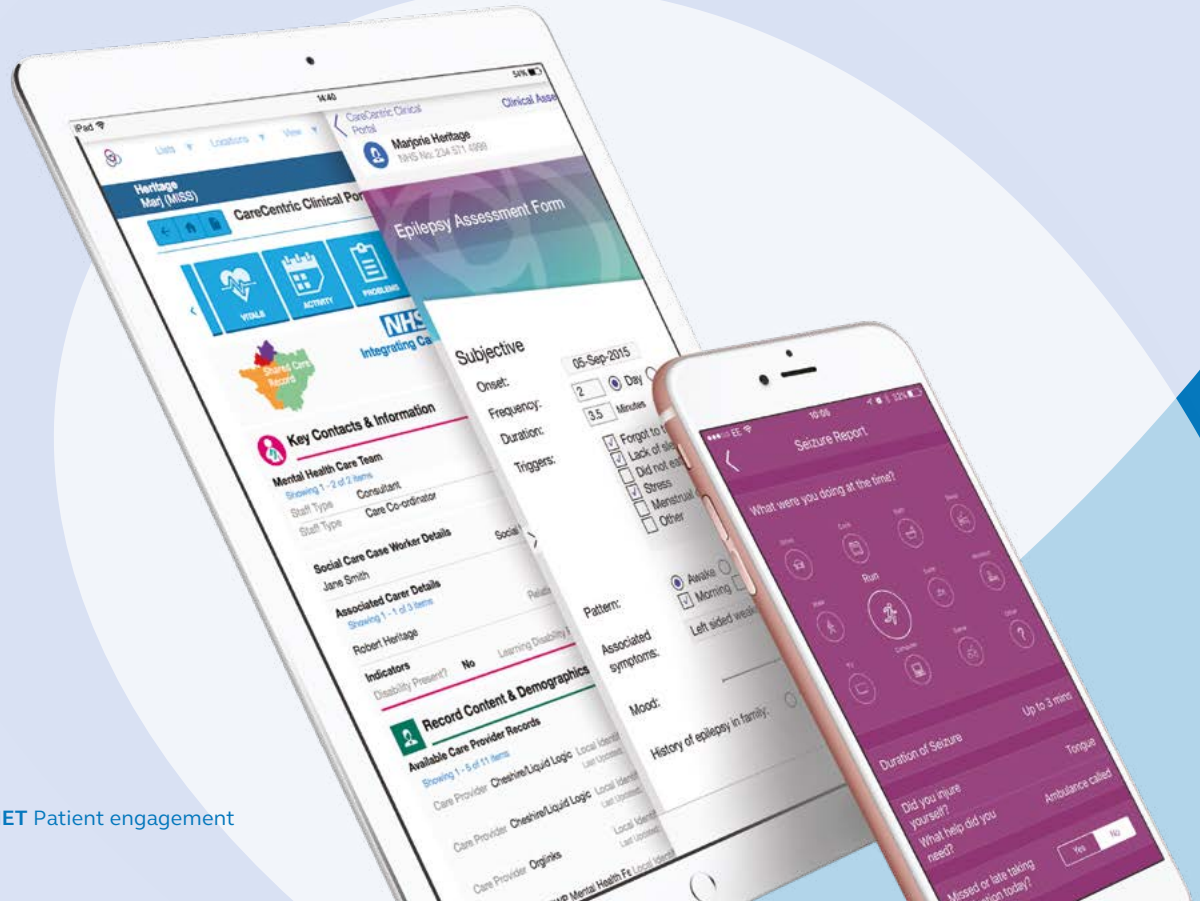
Those patients can then be recruited onto revised programmes of care which combine information from wearables and other telehealth devices with data entered by the patient. This is added to information from various systems across the care community, and held in a single care record.

Patients can be monitored remotely and clinicians alerted to changes in a patient's condition using machine learning and clinical dashboards.

Treatments and levels of intervention can be managed remotely and patients only called in for consultation when necessary.

Benefits for clinicians

- ✓ Manage and monitor a patient's condition and general health remotely (including information collected from wearables and telehealth devices such as weight, pulse, sleep patterns, exercise).
- ✓ Reduced pressure on services – reduction in regular check-ups
- ✓ More time released for care
- ✓ Ability to respond immediately to any changes in condition and take preventive action (e.g. modify drug dosage).
- ✓ Set alerts for pre-defined events – e.g. when a patient presents for an unscheduled admission.
- ✓ Proactive, fast decisions could help ensure appropriate treatment, reduce length of stay, or avoid unnecessary admission.
- ✓ Communicate directly with the other care professionals e.g. call on the expertise specialist or acute-based teams, or plan care with community and social care workers.
- ✓ Involve patients actively in the management of their condition, in order to help keep them healthier longer or contribute to a successful recovery.



Patient engagement case studies

Covid Oximetry @Home/ Virtual Ward

Using the Enhanced Case Finding tool, our integrated care partners can interactively filter patient lists to identify and reach out to those patients most at risk from the complications from Covid, ensuring care is targeted to where it is of greatest benefit.

Under the Covid Oximetry @Home/Virtual Ward programme, patients can record their pulse oximetry readings and symptoms electronically using our Personal Health Record (PHR) app.

Care professionals (e.g. GPs, acute clinicians, Out of Hours) across Integrated Care Systems have access to the latest patient recordings through our shared record. This means that should their patient's condition suddenly deteriorate; they can escalate the level of care. Being able to identify and recruit patients using the information routinely held in the shared care record allows for a more targeted and fuller response to a patient's individual wishes, needs and risks.

This same model could be applied to support many other care pathways such as higher-risk pregnancies, frailty or diabetes.

> *I had a 45 year old male of BAME background with underlying diabetes whose son developed Covid and, a few days later, my patient developed symptoms and tested positive as well…We enrolled him in the pulse oximetry programme and after day 11 his symptoms suddenly deteriorated from 95% saturations to 80% saturations. He was taken straight into hospital and he had a Covid-related pulmonary embolism. Without the pulse oximetry programme, we wouldn't have known he had deteriorated and this has saved the patient's life."*
>
> **Dr Priya Kumar, Connected Care, Frimley ICS and Berkshire West ICP**

Patient engagement case studies

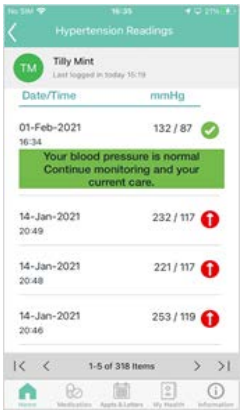
myCareCentric – Pregnancy Monitoring

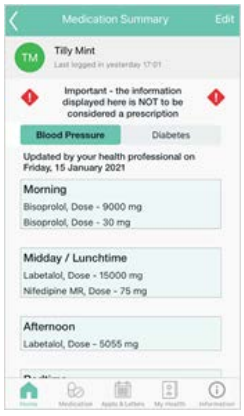
The Pregnancy Monitoring – Hypertension and Diabetes module supports the remote monitoring of citizens by allowing the recording of readings directly into the MyGM Care app (Personal Health Record) while being monitored from their own homes by healthcare professionals. When entered, these readings are available to the clinical teams in the Greater Manchester Care Record (GMCR).

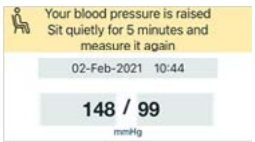
Clinical teams can send advice to patients who are using the Personal Health Record via the GMCR clinical portal and this will be immediately available within the app to patients.

Key components

- Personalised observation thresholds managed in the clinical portal
- Relevant information and contact information activated from the clinical portal based on type of monitoring and booking location
- Medication notes for hypertension and diabetes shared with the patient via the app
- Complex clinical rules determine the appropriate action using the standard or personalised thresholds so patients receives timely and accurate advice
- Observations and comments entered by the patient in the app are available immediately in the clinical portal
- Caseload view is used by the care teams to manage their patients
- Co-designed with an active clinical lead, care teams and patient representatives







Integrated care and support plans

Integrated care planning across health and social care providers is vital to ensure services are centred around the person and that professionals are supported to work together to provide more responsive, joined-up care.

The CareCentric shared record supports care professionals in their decision making by giving them access to a wealth of shared care data, complemented by our modular, intuitive care planning and management solutions.

Care teams that make use of these tools have found them invaluable, helping to achieve improved management, care and support for people with long-term conditions, those who are frail, those who have complex needs and those approaching the end of their lives.

Graphnet's integrated care plans bring tangible benefits for both care professionals and the people they care for. Multi-disciplinary teams are enabled to work more closely and efficiently to provide better outcomes, and individuals feel more in control of their lives and that their needs, however complex, are being met.

Greater Manchester Care Record – Benefits and Outcomes

Case studies

Benefits – Case Study 1

Prior to GM Care Record

A 71 year old man lives at home alone, is a frequent faller and often calls 999. The patient is invariably shaken and upset, doesn't want to be alone and insists on attending hospital.

Now

- The patient's GP asks for consent to give him a shared health and social work record, therefore giving him a designated keyworker. The patient agrees and a keyworker goes to visit patient and agrees a current and crisis plan.
- The patient explains that he is scared of going to hospital but when he falls he is extremely frightened and feels he has no option. keyworker engages with patient's next of kin.
- When the patient next has a fall and calls 999, the ambulance driver reviews his care plan which suggests he should call his daughter if he has had a fall and is uninjured but shaken. The ambulance driver assesses the patient, calls the daughter and stays with the patient until she arrives.

Outcome

Admission is avoided. The patient is happy to remain at home and feels safe in the care of his daughter.

Benefits – Case Study 2

Prior to GM Care Record

An 81 year old lady with dementia, who also has COPD and asthma, was attending hospital on average once a week. The patient was becoming increasingly upset and troubled each time she had to go to hospital.

Now

- The patient's GP put together a care plan in liaison with the patient and her daughter.
- The patient was then assigned a keyworker. As part of the overall care plan a crisis plan was created. Rather than the patient's carer or daughter immediately calling 999 when the patient's health deteriorates, she is now in most cases managed at home by the keyworker and/or family – unless she is unable to breathe.

Outcome

The patient has remained out of hospital for 5 weeks now and the keyworker continues to work closely with patient and the family.

Graphnet is the UK's leading provider of shared care records and population health management systems to the NHS, social and care services.

We are part of the System C & Graphnet Care Alliance, a strategic partnership making integrated health and social care a reality.

Together we are:

- A leading supplier in acute EPR with 28 NHS Trusts
- The no.1 supplier in immunisation & child health, our system is used to manage Covid and flu vaccination programmes for the whole of England
- The largest provider of shared care records and population health management systems to care communities and ICSs with over 20 million patient records held
- A pioneer in electronic observations with over 40 Trusts using our system
- The UK's fastest growing supplier of social care and education management services

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