

Dignio have years of experience of operating within a publicly funded integrated care system, with a solution built to accommodate a seamless journey for individuals and care providers across increasingly complex care needs (self-management, domiciliary care, residential care, end of life care). The non-modular architecture of this Cloud-based solution permits fast deployment for any disease pathway, being person, not disease-centred. This award winning international Connected Care provider, established in Norway in 2010 (UK, 2017) and their multidisciplinary team work collaboratively with care providers. The solution enables safe and cost effective care, whilst at the same time liberating clinicians from routine tasks. The trusted blend of methodology and technology empowers each clinician to look after large numbers of individuals, with only relevant cases or events prioritised for their attention. It provides the individuals cared for with a sense of safety and sources of trusted information and support at their fingertips.







Delivering Innovation in to Health and Care -**Medlink West Midlands** 2021



Driving Digital Transformation Innovation 2021



Most Transformative Digital Healthcare Company 2020





Start-up Award **Medlink West Midlands** 2019

Innovative Low Cost Business Model 2017

Standards & Compliance



DTAC compliant



Cyber Essentials

Certified

FHIR Standards

HL7 FHIR



Software as a Solution CE marked as a Class I Medical Device



Certified ISO 13485 and ISO 27001 compliant



Fully compliant and published NHS Data Security and Protection Toolkit



Approved CCS supplier listed on multiple frameworks



Integrated with read/write access to **EMIS**



Passed ORCHA assessment with high scores



Examples of News Articles, Publications & Videos

- <u>Dignio & Mastercall Healthcare Video</u>
- NHSx case study of the Mastercall deployment
- BBC Midlands Today (2021) A new phone app is piloted in Dudley
- Med-Tech Innovation News (2021) App helps NHS hospital reduce admissions during COVID-19 pandemic
- Deloitte (2020) Digital Transformation Shaping the future of European healthcare
- <u>Lifescience Industry (2020). Digital platform bridges the gap between social care</u> and healthcare
- Black Country Radio (2020) Dignio App Launched in Dudley for patients with Covid-19
- Computing (2020) Saving lives with IT
- Building Better Healthcare (2021) Dignio helps NHS achieve Net Zero
- The Journal of mHealth (2021) Patient-centred Care More Important Now Than Ever
- <u>Digital Health (2021) Helping Heart Failure Patients in Salford Royal Hospital NHS</u>
 FT
- Marketing Stockport (2021) A Local Authority perspective
- Parliament.uk House of Lords (2021) Ageing: Science, Technology and Healthy
 Living Science and Technology Select Committee (Chapter 5, Dignio cited in Line

 323)
- Parliament.uk House of Lords (2019) Written evidence from Dignio
- Parliament.uk house of Lords (2019) Oral evidence from Dignio



A person-centred flexible generic solution that can be applied to any disease pathway, and concurrently across multiple diseases and levels of care.

Case Examples:

UK Example 1 - Project Live since November 2019, Mastercall care powered by Dignio: Community and Care Homes

Population: Patients with Long Term Conditions (e.g. COPD) in communities, residents in care homes with Long Term Conditions requiring regular check ups and follow up; citizens and care home residents at risk of COVID-19 infection, over 450 individuals to date, across more than 12 sites.

Intervention: Utilising Dignio solution to gather questionnaire and vital signs data according to disease-specific schedule (e.g. following national guidelines and local protocols) to guide remote management of symptom detection, response and escalation by Mastercall staff. Utilising MyDignio (patient and carer facing app), DignioPrevent (Software as Medical Device, including a clinical dashboard), 3rd party integrated Bluetooth enabled devices and/or manual input from locally used devices.

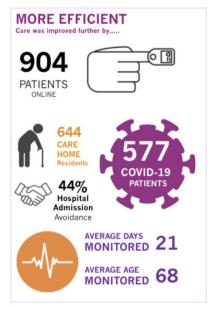
Comparator: Comparison to outcomes from previous standard operating procedures without Dignio.

Outcomes: Appropriate detection of deterioration in communities and residents, appropriate remote management preventing the need for call out visits, reduced ambulance call outs, reduced hospital admissions, high levels of satisfaction reported from care workers, citizen/patient users, and clinical staff delivering the monitoring service, cost effective service offering substantial savings.











UK Example 2 - COVID-19 Virtual Ward with Dudley CCG

Population: Patients assessed face to face and deemed well enough to be sent home, but with observation.

Intervention: Dignio solution (MyDignio, DignioPrevent, integrated devices: thermometer, pulse oximeter), clinical care provided by the provider commissioned by the CCG for COVID-19 telehealth management.

Comparator: Dignio solution utilising case stratification replaced a once-daily phone call by the commissioned covid management solution provider, which was made daily, to each and every patient on the list, regardless of their condition. There was no provision for detecting deterioration between the phone calls.

Outcome: No dropouts, high compliance and no reports of difficulties from patients, users or the clinical staff at either the recruiting/training site or the monitoring team. This project was used for the BBC Midlands feature on oximetry at home for COVID-19 patients https://twitter.com/bbcmtd/status/1365240932757630976?s=11

Outcomes in numbers



Patients would recommend the service to friends and family



Clinical users surveyed would recommend Dignio to other primary care providers



Patients rated training as Excellent, Good or Adequate



Clinical users
agreed or strongly
agreed that using
Dignio had made
the care of patients
safer than before
using Dignio



Patients felt reassured by being remotely monitored



Clinical users
either agreed or
strongly agreed
that the app was
easy for patients to
use



Patients were very satisfied or satisfied with the support they received



Patients returned the Bluetooth devices they were provided with for monitoring

Norway Example 1: Independent evaluation, VIS Report for the Oslo City Council: Long Term Conditions patients in community

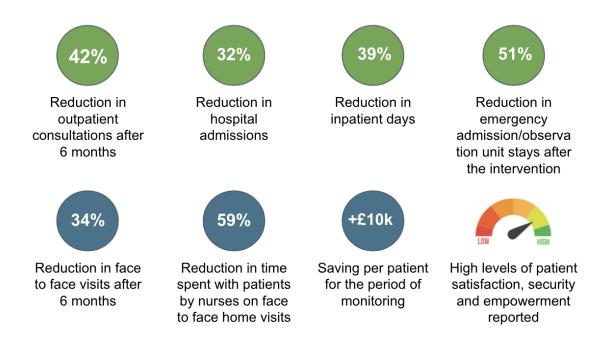
Project commissioned by the Norwegian Directorate of Health. <u>Link to publicly available</u> research report here.

Population: Patients receiving regular community-based care at home for their Long Term Conditions.

Intervention: Dignio solution used to monitor the health and well being of patients and educate them about their own illnesses to empower self-management. Bluetooth integrated devices for monitoring vital signs included electronic medication dispensers, blood glucose monitors, pulse oximeters, spirometers, blood pressure monitors, thermometers, weighing scales and patient alarms. Patients received nursing care provided by the district's home care service.



Comparator: Previous model of care delivery without technology support. **Outcomes:**



Norway Example 2: Deployment at scale for COVID-19 deterioration detection, Oslo Municipality

Population: Physiologically stable COVID-19 positive patients residing in all 15 districts in Oslo.

Intervention: 15 virtual wards established to enable safe and effective triage by local public health teams, follow up of physiologically stable COVID-19 patients at home and detect early signs of deterioration. Dignio solution is used to self-report symptoms such as breathlessness, general state of well being via electronic questionnaire and, where prescribed, monitor oxygen saturation and temperature using integrated devices. Threshold values or responses triggered an alert that was reviewed by the team. Patients could also communicate with the public health team by chat or video.

Comparator: Public health team had to ring each and every patient on a daily basis and ask about symptoms, even if the patient was otherwise fit and healthy.

Outcomes: The municipality of Oslo evaluated their experience of using the Dignio COVID solution (as of Sept. 2020):



- User friendly overview of COVID-19 patients for health personnel in a dashboard format
- Easier to follow up large groups of patients which provides peace of mind for health personnel who are on call.
- Quality of the follow up has improved as all patients and their close contacts receive a standardised questionnaire each day
- Decision support tool for the clinical team expedites decisions related to triage and ongoing levels of care thus saving time

Norway Example 3: Deployment in hospitals

Population: Colorectal cancer patients receiving chemotherapy, Østfold Hospital Trust

Intervention: Remote care oncology pathway to identify early signs of neutropenia or infection and to improve follow up between outpatient appointments. Patients reported symptoms and side effects of chemotherapy using questionnaires developed by the department. They also measured temperature and weight using integrated devices. Patients were able to take blood samples to test the white blood cell counts at home (using a medical device) and report the results of their blood test via MyDignio companion app.

Comparator: Normal care. The patient had to attend the hospital for hospital tests

Outcomes: (Based on a qualitative study)

- Patients reported that they obtained greater insights into their own condition.
- They felt more secure and better enabled to make better choices in their daily life to avoid deterioration.
- Patients experienced considerable benefits of being able to communicate via a tablet with a nurse, including being better able to cope with side effects of therapy. Being able to measure white cell count at home was also perceived as useful.
- Patients found training in use of the solution helpful and that the solution was easy to use.
- The oncology department reported that the virtual pathway had improved the quality of care between outpatient visits and that it enabled them to reduce the number of outpatient appointments.

Norway Example 4: Remote care of chronic disease patient, Sarpsborg municipality (MESTRY project)

Population: COPD, cardiovascular disease and diabetes patients who it was thought would benefit from remote care follow up



Intervention: Dignio solution was used to monitor the health and wellbeing of the patients and educate them about their own illnesses, to empower self-management. Bluetooth integrated devices for monitoring vital signs included: electronic medicines dispensers, blood glucose monitors, pulse oximeters, spirometers, blood pressure monitors, thermometers, weighing scales and patient alarms. A centralised response centre (staffed by a team of nurses and a doctor) monitored the Dignio Prevent dashboard. The nurses initiated appropriate actions in the event of any alerts being triggered and responded to patients queries predominantly using the chat function. The centre had access to physiotherapy, nutrition and psychology advice as necessary.

Comparator: Normal care - typically municipal home care services and/or GP

Outcomes (based on questionnaire study):



High levels of patient satisfaction, security and empowerment reported



Patients reported feeling empowered and more in control of their health



Patients reported that their diet had improved



Diabetic clinic reported an improvement in patients HbA1c levels