Labs and Drugs

440. Paul Timmers
Health Data Innovation Perspectives

445. Renato Cuocolo
Radiomics: Recent Trends and Assessing Research Quality

456. Ekaterina Kldiashvili
eHealth for Morphology Laboratory Practice

462. Maria C. Carrillo
Working Towards a World Without Alzheimer’s and All Other Dementia

468. Samna Ghani
Why is the Pharmaceutical Industry Not Developing New Antibiotics?

472. Henrique Martins
The EU Health Data Centre: A New Total Virtual Organisation
I recently spoke to a kidney transplant patient who embodied the need for successfully integrated care systems. He said that he had been admitted to the hospital twelve times in a matter of months two years earlier.

His complex condition, which included diabetes, limited kidney function, and the effects of immunosuppressants prescribed to prevent transplant rejection, had at the time led to several infections and sepsis.

Recognising the frequency of his hospital admissions, district nurses decided to place him on a remote monitoring programme. A care management plan was concurrently devised in collaboration with the patient and a multidisciplinary team that included his nephrologist at the local hospital.

As part of the treatment plan, the nephrologist insisted that if any likelihood of infection was detected, the patient should go straight to the hospital, where he would receive specialist care immediately – rather than the typical route of initially seeing a general practitioner.

This patient was ‘right as rain’ one day and doing very ill on the next. For him, reporting a runny nose meant a high likelihood of becoming unwell on the following day.

Being remotely home-monitored in a programme that drew on connected devices and an easy-to-use app capable of alerting his care team at the first sign of deterioration made a significant impact. Being able to detect risks early allowed appropriate action relevant for that individual to be taken. And in the past twelve months, the patient hasn’t had any unexpected hospital admissions.

**One Anecdote, Wider Meaning**

This is only a single anecdote, but it explains why patients must be at the core of emerging digital plans in integrated care systems. Technology can support personalised and effective care for an individual, but only if that individual’s needs are properly considered by different parts of the health and care system.

The patient’s story ensues from an integrated care project, supported by the Norwegian Directorate of Health, as part of a broader programme assessing the use of remote care. The programme, which Dignio supported, has helped reduce hospital admissions for patients by a third, with an even larger impact on lengths of stay and emergency admissions.

**Lessons From Around the World**

It is just one programme of many worldwide that integrated
care systems in the UK might look to for lessons as they develop and implement plans for digitally-enabled integrated care.

In England, an abundance of strategies has recently emerged from NHSX, a tech unit designed to help integrated care systems address digital priorities. These include a new data strategy for health and care, known as ‘Data Saves Lives’, a digital clinical safety strategy, and a new framework targeted at integrated care system leaders, outlining ‘What Good Looks Like’ in digital transformation (NHS Choices 2021a; NHS Choices 2021b; NHS Choices 2021c).

Seeing such a convergence of ideas is a positive development. But experience has also shown that ‘what good looks like’ on the ground might differ from the documented policy.

**Lessons of Caution**

Lessons of caution might be drawn, for example, from a large-scale project in Odense, a Danish municipality, which itself drew on an integrated care pilot programme in North West London. A Danish study (Buch et al. 2018) noted that the “ill-fated” programme “failed at the clinical level” during implementation, despite “an ambitious setup, ample financing, a shared governance structure and a well-functioning project organisation”. Researchers from the Danish Institute for Social Science Research cited primary explanations as “an overly optimistic timeframe and a failure to take professionals’ wishes, daily practices, and values into account”.

Sweden, too, offers insights into where results might differ from expectations. Researchers at the Karolinska Institute and Sweden’s Aging Research Centre (Doheny et al. 2020) examined mixed results in implementing an integrated care system in Stockholm’s Norrtälje municipality. The paper cited “a modest decrease in the trend of the rate of ED visits”. The system was arguably perfectly planned. But lessons could be drawn around sufficiently anchoring the initiative in the local area with the right people.

**Reasons for Optimism**

Despite the challenges, there are many programmes throughout the world delivering significant success in integrated care.

Germany offers integrated care system leaders a glowing example. Gesundes Kinzigtal, a partnership between clinicians and the data analytics company, OptMedis AG, has done many things well – from initial design and using data to help clinicians identify high cost, high need patients through population health risk stratification.

The partnership has been very patient-centric, with workaround audit and feedback strategies and patient activation. The organisation invested in individual treatment plans, goal setting between doctors and patients, and shared decision making. Care planning has been based on decision support and self-care, with a strong focus on patient coaching and providing the proper care at the right time. A paper in Handbook Integrated Care (Groene and Hildebrandt 2017) records improvements in multiple areas.

Other impressive examples include Canada’s PRISMA programme in French Quebec. Réjean Hébert, a professor at Université de Montréal and former health minister, has published findings (Hébert 2021) on the initiative, which utilises computerised care plans in the care of older and frail individuals. This initiative is a strong example of joined-up working across multi-disciplinary teams, underpinned by shared decision making and effective pathways.

Successful initiatives from around the world are, in fact, too numerous in number to mention. Lessons can certainly be drawn from both sides of the Atlantic. The UK itself already has a large number of initiatives from which integrated care systems could learn.

One initiative, recently becoming better known, has taken place in Stockport. A collaboration between out-of-hospital provider Mastercall Healthcare and Stockport Metropolitan Borough Council and Dignio has seen a significant reduction in hospital admissions for at-risk patients whilst supporting people to feel safe and cared for at home.

The council and Mastercall Healthcare invested in a remote care platform that allows patients to be monitored remotely, with clinicians alerted to intervene early when necessary. A 44% hospital admission avoidance has been recorded for patients, and distress for vulnerable people for whom hospital visits can be traumatic has been reduced.

**Common Themes for Success**

The Stockport initiative has presented individual treatment plans, goal setting, and shared decision-making between patients and professionals. These are common themes consistently present in many of the above examples and other successful integrated care system initiatives throughout
the world.

Being able to target resources to highly vulnerable people is also increasingly important. If one can build care around the needs of those groups, then ambulance call-outs and admissions can be avoided, as can the knock-on effect of costly care and treatment. Having an effective, shared care record here can be vital to enabling the transparency of data required to build pathways around the person, rather than building pathways around vertical silos or individual illnesses. Working with one diagnosis at a time can be very laborious for both patients and providers. Digital plans and technology deployed must allow people to work around the individual flexibly.

Technology, designed and tested to meet user needs, is essential to providing successful integrated care. But often, the biggest challenge is the human factor. Integrated care systems must bring stakeholders together and get buy-in from leadership in multiple organisations. A multi-agency approach may even need to encompass areas like housing.

Setting up structures that allow organisations that haven’t worked together before to draw on technology is challenging and should not be under-estimated. Political and governmental will must also have equal longevity.

But what does success fundamentally constitute? A focus on patient-centricity is critical. Regarding the opening patient example, professionals from different organisations in Norway focussed on the needs of the individual in front of them. They were less concerned with referral routes and more concerned about responsively using data and technology to deliver the proper care. Focussing on ‘what good looks like’, digital integrated care initiatives must ask this question of the individual patients they are there to serve.

**Conflict of Interest**
Dr Meetali Kakad is the Chief Medical Officer at Dignio.

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**REFERENCES**


