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INNOVATION THROUGH TECHNOLOGY

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TAKE THE TABLETS

HOW GIVING NHS STAFF THE RIGHT TECHNOLOGY COULD SAVE £3BN 2

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Supplement editor
Daloni Carlisle

EFFICIENCY

The Department of Health's "Digital first" strategy aims to cut unnecessary face-to-face contact through the use of technology. That means looking afresh at everything from seeing a GP to the delivery of test results – much of which could be easily done by Skype, text or the old-fashioned telephone. The benefits are huge: implementing the most obvious innovations could save the NHS £3bn. Page 2

SERVICE REDESIGN

Too often patients who wish for a peaceful death at home end up in hospital. Now a new system for end of life care – "Coordinate my care" – means everyone potentially involved in care of the patient during their final hours – including the ambulance service, primary care team, secondary care team and community nurses – can be informed of their wishes and work together, helped by technology, to deliver the care they want. The result in areas pioneering the CMC approach is a big drop in the number of patients dying in hospital. Over the next 12 months the system is to be rolled out across London where tens of thousands of people could benefit. Page 6

MILES AYLING ON FACE-TO-FACE FACTS

Throughout its history, the NHS has faced increasing demands: a growing population with an extending lifespan; an increase in its own capability, fuelled by advances in knowledge, science and technology; and ever increasing expectations from the public it serves.

The NHS has always responded to these demands, in part through the creativity of its staff.

Now, like health economies across the developed world, the NHS is facing the twin challenge of improving quality and productivity at a time of significant financial pressure. Searching for and applying innovative approaches to delivering healthcare must be an integral part of the way the NHS does business.

Health and healthcare will continue to take up a greater share of this nation's GDP unless we transform the way we deliver healthcare. More of the same will not be enough; more of the same just doing it more efficiently will not be enough either. The answer is innovation.

We will need to change the way healthcare is delivered, where it is delivered, who delivers it and how patients access services. This is what was at the heart of Sir David Nicholson's recent review of innovation.

One of the six high impact innovations set out in the review was "Digital first".

This committed the NHS to reducing inappropriate face-to-face contacts and switching to higher quality, more convenient, lower cost alternatives by making use of the transformational improvements in the quality of information technology.

The DH has drawn together a report, *Digital first*, which identifies some very simple actions the NHS could take to transform the way people access healthcare. The report is intended as a call to action and sets out how the NHS can make use of simple technologies to dramatically reduce the need for unnecessary face-to-face contact and save hundreds of millions of pounds.

None of the actions is rocket science. It's about making better use of existing technologies that many people use every day. The ability to use email for non-confidential communications, or to have a remote consultation with a clinician using telephone or online technology would open up greater choice and offer a more convenient way of interacting with the NHS and accessing healthcare.

Despite the growth in new technologies, and prevalence of shifting away from face-to-face contacts in other industries (for example banking), the NHS still defaults to face-to-face delivery, often when not clinically necessary and where it may be less convenient to the user than a digital option.

It is time for change!

Miles Ayling is director of innovation and service improvement at the Department of Health

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EFFICIENCY

THE NHS APP STORE

Sharing local innovations will be key to saving billions through smarter use of technology. By Clare Read

In our day-to-day lives many of us don't think twice about using technology to shop, manage our money, book tickets for the theatre or for a football match – and to keep in touch with friends and relatives all over the world.

Skype, texting, instant messaging, even submitting confidential information online have become a way of life, streamlining communication and saving time and money for both consumers and organisations.

Yet despite advances in technology – and lots of examples of individual projects and initiatives – some nine out of 10 of all interactions in healthcare remain face-to-face. And every 1 per cent reduction in such "in person" contact could save up to £200m.

That's why the Department of Health is pushing its "Digital first" strategy. Formerly known as "Digital by default", this aims to cut unnecessary face-to-face contact through use of technology. This could be anything from a GP or hospital appointment to get negative test results, or for surgical follow-up – something which could easily be done by telephone, Skype or text. If you put all that lot together, the DH reckons almost £3bn could be saved (see box, overleaf).

But what are the barriers to making it happen? In particular, will a move to an NHS with a digital focus disempower those for whom technology remains a mystery? How can clinicians be brought on board, and how easy will it be to make the business case for change?

Think digital

Tim Kelsey, director of patient and public engagement, insight and informatics with the NHS Commissioning Board, is a well known advocate for a digital NHS. As co-founder of Dr Foster, he was instrumental in creating a culture where far more information is freely available. But he believes it could go much further – without leaving anyone behind.

"We're saying 'think digital first' but we want to embrace the whole community," he says. "I do personally believe that the majority of people will engage with technology but I don't think we can propose that there will be nothing done non-digitally."

He is clear that technology is a means to an end, which is to enable transparency and participation. Others are far ahead of the NHS, he says. In particular, he points to the retail financial services industry, airlines, and American cities which have used technology to transform the way they work.

"When Cahoot [the first internet bank] launched in 1998 nobody was doing online; now 22 million adults only do banking online," he says. "That's not to say that everyone will want to or can, indeed, take advantage of this, but it's been a transformation and it's put people much more in control of their money. Of course it also means that the financial services sector has saved a great deal of money."

He holds up online booking and check-in as a good example of how airlines are changing the way they operate, again giving the customer more control. But he stresses that the NHS will not be following the budget airline model of "punishing" those who cannot or will not participate in the digital revolution. "We have a responsibility to make sure that this is empowering people, not adding to inequalities," he says.

'We have a responsibility to make sure that this is empowering people, not adding to inequalities'

In the coming months, the NHS Commissioning Board will be setting out its plans on how to effect the NHS's own digital revolution. Mr Kelsey says this will involve three broad strands: first, a transformation in the quality of data available to professionals and to patients (which can be linked and co-produced with social care); second,

CASE STUDIES OVERLEAF ▶

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encouraging and enabling patients and the public to participate in their own healthcare by, for example, booking appointments online, building on work already being done, and using channels such as 111 to improve services; and third, identifying and acting on what needs to be done most urgently, such as moving more quickly towards a paperless health service.

Clinician developers

Although some of this will be driven at a national level, he is keen to empower local innovation and wants clinicians and others to be enabled to develop relevant applications. "It will be like launching an app store for NHS England," he enthuses.

But how does the health service get to the point where it is truly digital first?

"The idea is to get people thinking more about working in a more digital way," says Lynne Maher, director for innovation and design at the NHS Institute for Innovation and Improvement, which is leading on Digital first. "We've been collecting case studies which show people what's happening and where and who they can get in touch with to talk about different projects. We'll be updating the website with discussions, blogs and more case studies – we really want to encourage people to keep coming back to the website. The web pages will keep growing."

The website also has practical support and information on building a business case, and the procurement process. "We're not saying to people that this is what they must write – just offering templates to give them more confidence in moving forward," she says.

The next stage will involve asking those who are using digital technologies to share any other supportive materials they have found, including from suppliers. Website users will then be encouraged to rate how helpful they found it.

Crucially, however, the case studies in particular have easy-to-find contacts for people who are involved in each project. "We've found that what's really important in influencing people is to enable them to talk to people who are involved – especially if the conversation is peer-to-peer; a GP will want to talk to a GP, or someone involved in strategy will want to speak to somebody who talks the same language," says Dr Maher.

Social media techniques

Essentially the approach is to apply social media techniques – along with a healthy dose of personal contact.

Dr Maher says it's imperative that the NHS embraces digital technology, for the sake of patients, staff and organisations. "If we look at the bigger picture, it's about putting the patient first," she says. "If I want to ask my GP a quick question, and I'm working, I don't want to have to make an appointment which will take up a substantial proportion of my day. A quick telephone consultation will save the patient time and save the GP time too.

"The same goes for people with a long term conditions, who can send results

through a telephone or e-line rather than going to hospital. The patient feels valued – their busy life is recognised – and also feels safer because the results are being monitored.

"The case studies are about providing high quality care, but they're also about providing care which is cost-effective. We have to reduce costs and we have to be upfront about that – but we also have to keep improving quality."

Time and again, though, the message back from those who have tried to innovate is that their fellow clinicians are reluctant. What's stopping them?

Dr Sam Everington, a GP and chair of the Tower Hamlets clinical commissioning group, who sits on the Digital first "task and finish" advisory group, says: "I think it's partly fear of more work – GPs are very stretched – so we have to get the message across that this will actually make their lives easier.

'Instead of complex solutions it would be much simpler to give clinicians technology such as a tablet and see what they do'

"I've given iPads to the CCG board members and it's amazing what they do with them – not just answering emails, but taking pictures of skin lesions, sending copies of leaflets to patients, all sorts of things. Instead of coming up with all sorts of complex telemedicine solutions it would be much simpler to give clinicians the technology – such as a tablet – and see what they do."

Digital healthcare doesn't have to be about touchscreens, video-conferencing and other cutting edge technology, however – it can also involve making better use of the humble telephone.

"If every GP practice were to introduce telephone consultations, that would make a massive difference," says Dr Maher. "It's not just about whizz-bang technology; it's about using something which has been around for ages to make a real difference."

Freeing up time is also important, she adds. "The key is working with clinicians, but everybody has a busy day job – if you look at clinicians' patterns of working then they don't actually have any down time – so it's about enabling them to take time out to implement change. Having said that, change takes time, it takes organisation – it's not for the faint-hearted." She expects, that in the end, patient expectation will drive this.

"People are using digital technology in shopping and banking – they want to use it in other areas of life as well."

CASE STUDY: DIGITAL APPOINTMENT REMINDERS

People who don't turn up for appointments are a multi-million pound headache, wasting time and resources, as well as losing or delaying income.

But sending text message reminders can significantly cut the numbers of "did not attends" in both primary and secondary settings, potentially releasing £264m in savings in England.

Portsmouth Hospitals Trust managed to release savings of £1.6m in one year by implementing an SMS appointment reminder service.

The trust offers 600,000 outpatient appointments annually, but 40,000 were not being attended – costing £4m in lost capacity and lost or delayed income. Following the introduction of the SMS reminder service in 2010, the number of "did not attend" appointments fell by 38.3 per cent.

The benefits were immediate and tangible, says Mandy Mugridge, senior project manager with the trust. As well as the cost savings, 1,776 appointments were reallocated, meaning that people were seen more quickly than they might otherwise have been, avoiding wasted capacity, and making additional savings of £55,000.

Outcomes overall included reducing DNAs from 13 to 8 per cent, reducing the cost of processing clinical correspondence, improving the patient experience, and giving patients the chance to provide information about their condition.

The trust is now exploring other ways of using texting, such as delivering negative test results, and is turning to other forms of technology too, such as online check-in for outpatient appointments.

The key, says Ms Mugridge, is to plan the service around patients, and to keep it simple. "We're not expecting people to press lots of buttons until they lose the will to live," she laughs. "With all these things we're starting small, listening to the feedback, then letting the service grow."

CASE STUDY: ELECTRONIC PERSONAL ASSESSMENT QUESTIONNAIRES

Digital First estimates that 40 per cent of all pre-operative assessments could be carried out remotely, saving 1.2 million face-to-face appointments and releasing cost efficiencies of £48m (or £34m assuming a 70 per cent target).

Likewise, remote or virtual follow-up clinics after surgery, using online questionnaires combined with telephone or video consultations, not only save patients the time and effort of travelling to hospital, but could also release cost efficiencies of £41m.

Both these initiatives are made possible by the electronic Personal Assessment Questionnaire (ePAQ).

Developed initially by a gynaecologist at Sheffield Teaching Hospitals Trust to elicit meaningful information from women with pelvic floor disorders, ePAQ has now been

TEN DIGITAL EASY WINS

Digital First identifies 10 'easy win' initiatives to release funding of up to £3bn. The 10 initiatives (and potential savings, assuming a 70 per cent take-up) are:

- Minor ailments online assessment (£154m)
- Primary care appointment booking online (£53m)
- Primary care pre-assessment (£903m)
- Appointment reminders (£264m)
- Mobile working in community nursing (£36m)
- Pre-operative screening online (£34m)
- Post-surgical remote follow-up (£41m)
- Remote follow-up in secondary care (£326m)
- Remote delivery of test results (£1,120m)
- Electronic delivery of secondary care clinic letters (£96m)

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used for this purpose by more than 30,000 women in at least 15 NHS trusts. In Sherwood Forest Trust, ePAQ has led to an increase in clinical turnover of 10 per cent, with high patient satisfaction.

The technology and ethos of ePAQ have now been developed for other areas, including pre-operative assessment (ePAQ-PO). Following a two-year validation and clinical testing programme, ePAQ-PO is now being piloted in clinical practice in Sheffield Teaching Hospitals Trust.

Potential quality and efficiency improvements identified include a reduction in unnecessary pre-operative investigations (through evidence-based algorithms). For example, 72 per cent of clotting screens, 25 per cent of full blood counts and 35 per cent of urea and electrolyte tests could be avoided, with a potential saving of up to £120,000 per trust per year (based on an annual caseload of 30,000 patients).

Assessments can be done at home, online or using a touchscreen terminal in clinics, which means patients can provide information about their condition at a time and place that suits them.

Consultant gynaecologist Stephen Radley, who developed ePAQ with colleagues in Sheffield, says it has huge potential to streamline services further. "In the longer term, a high quality assessment process will be enabled, standardised and efficiently initiated in primary care, with well prepared patients actively participating and engaging in their own healthcare, being empowered and supported at the point of entry and throughout their care pathway."

CASE STUDY: DIGITALLY ENABLING PATIENTS IN PRIMARY CARE

When Dr Amir Hannan took over the GP practice previously run by one Harold Shipman, he knew that rebuilding trust was essential – and realised very quickly that technology was a valuable tool for making that happen.

He has been a pioneer in using digital means to involve patients more closely in their care, from encouraging them to access their medical records, to ordering repeat prescriptions, booking appointments and looking up test results online.

Some 16 per cent of the Haughton Thornley Medical Centres' patients – around 1,900 of them – have taken the opportunity to have online access to their medical records since the system was introduced six years ago, rising to one in four in the 25-74 age group, including almost a third of patients with type 2 diabetes. "We're on a journey and we're not there yet," says Dr Hannan. "We're trying to help people to understand their record, not just giving them the information. My view is that I've got nothing to hide, and it's very popular with patients of all ages."

The first repeat prescription was ordered online by an 83-year-old patient, he says, who had been inspired to go to a computer course at her local library to enable her to access her medical record.

Dr Hannan is finalising research into the savings generated by giving patients access to their health record; initial results are significant, he says, and he hopes a paper will be published soon

One of his patients, Yvonne Bennett, 64, makes the point very clearly that she has saved the NHS – and herself – time and money. Having suffered several falls, her local hospital wanted to send her for an osteoporosis scan. "I was able to tell them I'd already had one done, and show them the results," she says.

She has no qualms about data security. "I don't leave my passwords lying about. I do online banking and I'd be more concerned about people looking at my money than my health!" ●

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DR JULIA RILEY ON DISRUPTIVE TECHNOLOGY

The sad stories of people who want to die at home but in fact die in hospital are now well known. In London we now have some different stories to tell about how clinicians have been able to share records and work together to help patients die in their preferred place of death.

The service is called Coordinate My Care (CMC). It is not a "death register" as referred to by the *Daily Mail*. On the contrary, it is about the way a patient chooses to live. It puts the patient in control and creates an environment where clinicians can truly work together.

CMC can streamline the provision of health and social care services that require complex interventions from multiple professionals across multiple settings. We are proving that CMC can transform the way we do things and, at the same time, make the process of delivering end of life care less expensive.

By April 2013, the CMC team will have trained over 4,500 clinicians across London on how to work with patients to create an individualised care plan that includes their end of life care, records their wishes, ensures regular review of the plans and encourages healthcare professionals to act on them when they are needed.

'Now CMC is changing the end of life pathway; tomorrow it could change care for long term conditions'

Getting here has been a long and complex process. It has involved working with partners as diverse as NHS 111, the London Ambulance Service, out of hours GPs, clinical commissioning groups and PCTs, with specialist acute care services, primary care, community care and the third sector.

Although CMC is underpinned by an IT solution, it is not an IT led project. The technology has always followed the clinical and patient need.

Implementing the system across London will require a lot more work. Currently we have a few thousand people on CMC. Of those recorded, 77 per cent have died outside of hospital. Potentially, there are 57,000 people in London who could benefit from an end of life plan.

CMC is a disruptive technology. It changes the way we do things. Now it is changing the end of life pathway; tomorrow, it could change the way we deliver care for people with long term conditions. My vision is that CMC will be the single most successful innovation in end of life care.

Dr Julia Riley is clinical lead for CMC at The Royal Marsden
www.royalmarsden.nhs.uk/cmc

SERVICE REDESIGN

A KINDER SYSTEM

How technology is helping many more patients die where they want to – at home. By Clare Read

Margaret did not expect to live long. She had lung cancer and had made her plans about where she wanted to die and what treatment she wanted to receive when the time came.

But, as is the way with these things, the time came and her son – her main carer – panicked as Margaret's oral pain control failed. He called an ambulance.

Now, you might expect a sorry end to this story, one that involves Margaret being admitted to hospital and dying there against her wishes.

But you'd be wrong. Margaret was registered with Coordinate My Care and her electronic end of life care plan was available to the ambulance service, primary care team, secondary care team and the community nurses.

When the call came to the ambulance service, an automatic flag popped up and the clinical service desk was able to read the care plan.

This detailed Margaret's diagnosis, prognosis, current and anticipated problems, advance care plan, resuscitation status and her wish to die at home. It indicated that intravenous morphine was already in the house and gave the number of the 24-hour district nursing service who could administer it subcutaneously.

An ambulance was dispatched to provide immediate pain relief and to wait for the district nurse who put up the syringe driver. Twenty four hours later Margaret died peacefully at home just as she had wanted.

"Coordinate My Care can make a vast difference to patients," says Dr Julia Riley, clinical lead and palliative care consultant at The Royal Marsden foundation trust. "For the first time, everybody involved in a patient's care will be able to know what has been requested and can avoid inappropriate treatments."

Typically, two thirds of people in the UK die in hospital compared with just 19 per cent of CMC patients (see box, right).

It is about to make an enormous difference to many more patients too, as over the next 12 months it is to be rolled out across London where, in theory, 57,000 people could eligible for a CMC record at any one time. It could also be extended for use in long term conditions; the era of integrated care might just have arrived.

While the outcome for patients of CMC may feel simple – they get to say where they want to die, the information is shared among care providers and then acted on – getting to this position is not.

"It is a culture shift," says Dr Riley. "It is pathway driven and to get it to work requires engagement from everyone involved in the patient's care as well as training for the clinicians."

So while it would be tempting at first sight to see CMC as an electronic solution, there is far more to it than that.

Essentially it works like this. Clinicians (usually GPs or community nurses) identify patients who have a year or less to live and have unmet palliative care needs and use the Edinburgh Supportive Palliative Care Indicator tool to find out if they could benefit from CMC.

'Typically, two thirds of people in the UK die in hospital compared with just 19 per cent of CMC patients'

With the patient's consent, or "in best interests" if they lack capacity, the clinician and patient plan the future care and record the patient's wishes on a template that is uploaded to the CMC site. Essential information includes the demographic details, diagnosis, preferred place of death, resuscitation discussions and resuscitation status.

When a new patient record is uploaded onto CMC the out-of-hours teams (including

What you want: technology can help carers share and deliver on patients' care preferences

GPs and 111), London Ambulance Service and the patient's named GP all receive an automated, encrypted email alert so they can immediately view the details via a secure login to the CMC web portal. The patient is also offered a paper copy of the CMC entry – with plans to make secure electronic viewing by patients possible in the future.

When NHS 111 or the LAS receive a call from a patient with a CMC care record the system flags this up. Clinicians who have a legitimate relationship with the patient, whether they are in NHS 111, the ambulance service, community care, primary care or acute care, can also view the record.

The record can be updated and refined over time to include changes in the patient's wishes. At any rate it should be reviewed at least every three months, usually in the GP practices in their end of life care meetings.

CMC also generates reports – for example at the level of nursing home, GP practice, palliative care team, district nursing area or CCG. These can be used to support multidisciplinary discussions and case management and to benchmark between different areas and service providers or to support service redesign.

Quality markers are embedded into CMC. A project is underway to track the costs of each patient on CMC and the quality of care delivered. Reports written for commissioners in the future will include costs and quality of services delivered by providers in the locality.

Under CMC, "the patient is king," says Dr Riley. There are three key principles underpinning CMC. "The patient makes the decisions. The patient consents to a CMC record and the patient decides what he or she wants."

Not only must health professionals be prepared to have the difficult discussions with patients about their end of life care and record their wishes, they must also be prepared to share the information with appropriate consent and keep the record up to date.

The work carried out by CMC with nursing and care homes is a good example of just how complex doing this can be.

Jo Hockley is a nurse consultant who runs the Care Home Project team at St Christopher's Hospice in south east London. The team was set up in 2008 to support local nursing homes in providing high quality end of life care to their residents and, since July 2012, has been working to help nursing homes implement CMC.

"I think what a lot of people do not realise is that nursing homes have changed," says Ms Hockley. "They are less the places of companionship that they were ten years ago

KEY FACTS

Audit date: October 2012
Number of CMC records created: 2,827
Diagnoses: 45 per cent cancer, 55 per cent non-malignant diseases
Number of deaths: 673

Care Home	150	22%
Home	192	29%
Hospice	78	12%
Hospital	128	19%
Not Recorded	122	18%
Other	3	0%
Total	673	

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and increasingly they are places where frail elderly people are nursed for six months to two years maximum. Yes, nurses will rise to the challenge but they are very isolated from medical and geriatric input."

Ms Hockley's team helps care homes to implement the Gold Standard Framework for end of life care – a systematic approach to optimising end of life care delivered by generalist providers.

In 2008, 55 per cent of deaths among nursing home residents in Croydon's 25 nursing homes took place in the home. By July 2012 they had already driven this up to 79 per cent.

"When we were asked to get involved in CMC our nursing homes in Croydon were already working to a very high standard," she Ms Hockley. "They were already doing advanced care planning and do-not-resuscitate plans. But we were still getting unnecessary ambulance call outs and resuscitation issues."

These issues seemed to be cropping up out of hours, says Ms Hockley. "We had difficulty engaging with the night staff and weekend staff. When the out-of-hours GP said call an ambulance, they would do it."

She hoped CMC would help solve this problem by making patients' end of life care plans visible to out-of-hours GPs, NHS 111 and LAS. "I also hoped it would end the isolation of nursing home staff from medical input," she adds.

That seems to be what is happening. Care home nurses fill in the CMC templates, which are then checked by clinicians before being sent over to CMC for uploading onto the system. So when care home nurses call 111 or 999 in the night, the CMC flag pops up and the urgent care services can respond appropriately. "Our care home nurses say it is wonderful," reports Ms Hockley. "When they call NHS 111 they are put straight through to a clinician – someone who is committed to the resident staying in the nursing home rather than admitting them to hospital. They are now getting access to clinical advice in an acute situation."

Eileen Sutton, who leads NHS 111 for NHS London, adds: "We thought it was really important that patients who are terminally ill can get through to a clinician as quickly as possible."

'Practices that have not developed their end of life care will find it more difficult because it requires a complete change in processes'

She does not mean just nursing home residents but anyone with a CMC care plan. "Now when someone with a CMC plan calls us in the middle of the night or on a bank holiday, they know their care plan is accessible by our clinicians."

Ms Hockley's team has been subcontracted by CMC to carry out training in all of London's 374 nursing homes. Not all may be as straightforward as Croydon or other areas that have already implemented the Gold Standard Framework, she admits, and training will need to be tailored to local needs.

Ms Sutton echoes this point. CMC will be rolled out across London as part of the NHS 111 service but already the experience is that some health professionals have been easier to engage than others.

"Everybody gets the idea," she says. "But some have more difficulties with the changes needed. The palliative care nurses and Macmillan nurses in areas where NHS 111 is live have taken to it really well and the GP practices using the Gold Standard Framework have found it easy – for them it's what they have been waiting for.

"But those GP practices that have not developed their end of life care processes so well find it more difficult because it does require a complete change in their processes."

CMC is also just what the LAS had been waiting for, says Dave Whitmore, senior clinical adviser to the medical director and the LAS lead on end of life care.

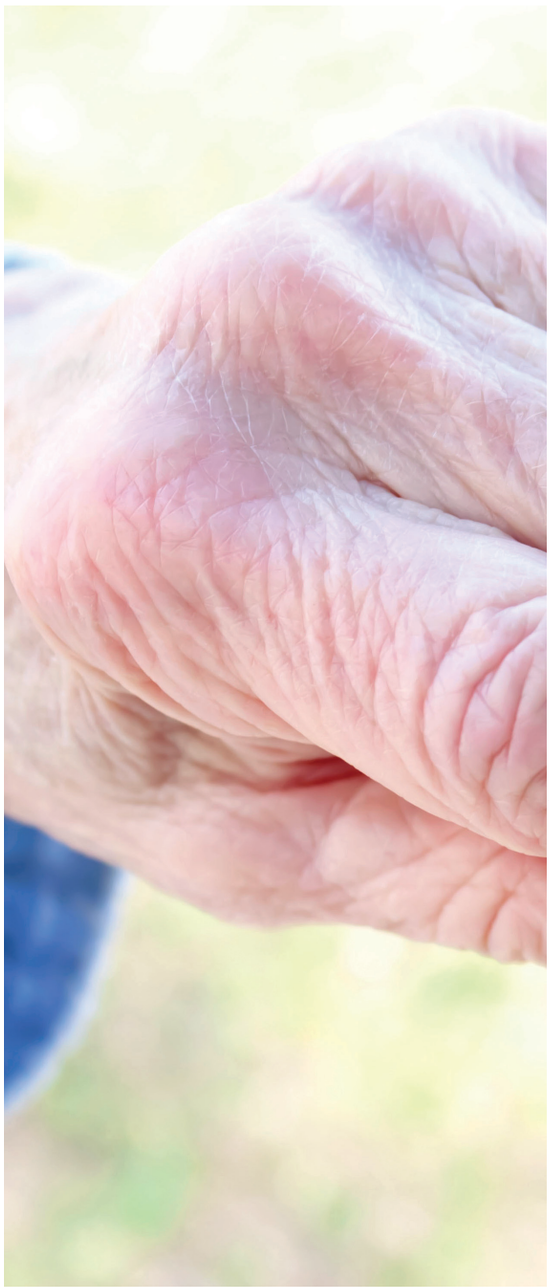
He had been working on how to share end of life records for several years and had come to the conclusion that the only way to do it was through an electronic, 24/7, single, web-based system for London.

"We get called in a crisis," he says. "The end of life plan may be in place but when it is an emergency people forget to call the palliative care team and call us instead. The only number they remember is 999."

The more the ambulance service knows about the patient, the better able they are to respond appropriately. "With CMC, ambulance control staff can see care plans, medications, the GP or nursing notes. The most important issues are flagged up at the top of the care plan and there are contact numbers for the healthcare professionals caring for the patient," he says.

He recalls the case of a man with end stage renal failure who had been discharged from hospital to die. His relatives had called an ambulance when he fell following a seizure.

LAS dispatched an ambulance but were



HIGH IMPACT TECHNOLOGY

The technology behind CMC was developed by Liquid Logic and while the technology itself is not startling, its impact is.

Tom Frusher of Liquid Logic says: "The power comes from the fact that it supports a service in a completely new way by getting the right information to the right person at the right time. It is compelling for clinicians who use it. Their basic proposition becomes not so much 'why should I use it?' as 'why haven't we been doing this for a long time?'"

Dr Riley is careful to point out that CMC was never conceived as an IT project; the IT was always led by the clinical need. "We tried to develop our solution with Connecting for Health using the summary care record, but that was a technology-led project which restricted it severely. With CMC it is the other way round and as a result the solution is very intuitive and easy to use and fits in nicely with the way clinicians work everyday."

Holding your data: the CMC care plan is accessible to clinicians 24 hours a day

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also able to call the palliative care team who sent a clinician immediately. When the ambulance arrived, they treated the now barely conscious man with diazepam before handing him on to the palliative care team.

"He died peacefully in a hospice two days later," says Mr Whitmore.

Currently crews cannot access CMC – that's done securely in the control room – and while using mobile devices to review a care plan en route to a call sounds attractive, Mr Whitmore is cautious. "We have to be sure that we are keeping people's information secure," he says. "So anything like this would need to be done very carefully."

Ambulance crews are not the only professionals who would like mobile access. As CMC is web-based, no data are held on the device and already one hospice is using iPads to enable community nurses to access CMC. Meanwhile, a pilot is underway to test mobile access by out of hours GP services.

At the moment, CMC has a few thousand records – about 3,000 by the end of October 2012 – but that could expand to a theoretical 57,000 if it is taken up right across London by all care providers, says Mr Whitmore.

"It is going to grow exponentially," says Mr Whitmore. "As a paramedic and as a manager I know having a service like CMC makes a real difference to the quality and cost of care. I also feel that if we develop it carefully it could become a much more powerful tool that we could use not just for end of life care but long term conditions."

So does Dr Riley. "We'd like to start a pilot project," says Dr Riley. "We do need a shared care record for people with long term conditions but there are a lot of issues to address."

She speaks from experience with CMC, which has involved significant pieces of work around information and clinical governance as well as systems integration to get the IT system to work and engaging with different clinical groups. "Getting robust structures around implementation for both information and clinical governance has been critical to its success and acceptance," adds project manager Kate Mansell.

CMC will be a London-wide service, and over the next year the team will be training over 4,500 clinicians to use the system. However, commissioners need to buy into it.

"Essentially we are a pathway redesign service," says Ms Mansell. "We change the way people practice. We provide the training, support for the system, ongoing clinical quality checking and reporting."

CMC has really only just begun. Dr Riley describes it as "disruptive technology". She says: "We have shown that it can change the culture to deliver full integrated, personalised end of life care. It has the potential to change the way we do things and, at the same time, make the process less expensive. My vision is that CMC will revolutionise end of life care."

CASE STUDY: DELIVERING SPECIALIST END OF LIFE CARE

Only half of the patients currently registered on CMC have cancer. One sub group of patients is those with renal failure who do not want dialysis and who therefore need to plan their end of life care.

Breeda McManus, renal consultant nurse at Barts Health Trust, explains what goes wrong. "We have had lots of patients who have made this choice but have then been admitted to hospital in an emergency and end up being treated with dialysis."

She has worked closely with CMC to develop specialist templates for these patients that improve communication between primary and secondary care to avoid this scenario. "With CMC our patients will create a care plan with their clinicians and all their decisions will be recorded. Clinicians can be kept up to date about their management, their wishes and their ongoing problems," she says.

She hopes that patients' wishes will be respected better in future and that the record will be a shared resource for community clinicians and specialists in hospital to improve care overall.

Similar work has been done around motor neurone disease and Dr Riley hopes to develop other packages around diagnoses including dementia, chronic obstructive pulmonary disease and heart failure. ●