Can Near Field Communication (NFC) technology help to move us closer to a Smart eHealthcare system?

Raymond Lee, Commercial Manager – Mobile Payments at Consult Hyperion, discusses how advancements in smartphone and NFC technology can lead the way to significant improvements in service and cost savings in managing Domiciliary Care and its payment scheme

It's the bold aim of the European Commission (EC) to give all its citizens secure digital access to their health records by 2015. To anyone in the UK, this may sound ludicrously ambitious given the problems and spiraling costs of the NHS' seemingly doomed 'joined-up' approach to the digital care records system. However, if we look past this for a minute, the past two decades have seen eHealthcare systems (the umbrella term for IT systems that store and share patient data) become increasingly sophisticated. If you add to this the increasing breakthroughs and innovations happening within the mobile communications and financial payment sectors, the way is being paved for virtual healthcare for the remote management and monitoring of patients via smartphones, apps and simple, fast data exchange technologies such as NFC.

For example, Tieto Healthcare has launched an iPhone app called iM1-Mobile that gives medical professionals immediate access to important patient information and other key data within their hospital information system. Having this information available on a handheld device will help health professionals to optimise processes, reduce waiting times, and secure the flow of information in order to help them make high-quality decisions. With companies such as Intel looking into the prospect of putting motion and sound sensors in the home to remotely sense the activities of elderly and sick relatives who live on their own, the case for adopting NFC technology in domiciliary care to increase the effectiveness of remote health care and monitoring perhaps has even more scope.

The possibility of these remote sensing systems interfacing with NFC enabled phones (many more are now coming to market) are set to play a crucial role in Domiciliary Care by providing significant benefit to the recipients and enabling care organisations to promptly respond to changing circumstances and focus their efforts on exactly where and when they are needed.

Domiciliary Care workers typically receive their daily schedule through mechanisms such as emails and secure portals. Their days are divided into visits that usually comprise a small

number of activities in small time boxes – usually of about 15 or 20 minutes. A visit often includes actions such as arriving and gaining entry, agreeing with the occupant the full list of activities to be done, completing the agreed activities, completing the documentation, getting sign off, leaving, and then getting the information needed for the next visit of the day.

At the end of a shift, the completed documentation – including timesheet and expenses log (if any) is reviewed, tidied, completed and prepared, so that it can be sent to the worker's employer for appropriate invoices to be raised on the Local Authority. Inevitably, this whole process is time consuming and means that fewer visits per day can be made. Plus, as information is completed manually (and often in a hurry, in-between visits), errors can occur which require extensive effort to resolve. The result is that Domiciliary Care workers spend less time providing front line services, and the costs incurred by the employer are passed onto the Local Authority.

By using NFC enabled mobile phones with GSM and contactless prepaid cards to automate as much of the administration and support process as possible (e.g. linking it to back-office systems to give staff live information and updates), countless hours will be saved each day from administrative duties and thus enable care workers to focus their attention on providing their essential services. In addition, maintaining essential management information, reports and financial information can be done much faster in real time, so any issues can be dealt with very quickly. In particular, the real time nature of the reporting provides greater responsiveness and flexibility to accommodate any changes that might arise during a visit.

The benefits of NFC technology are clear. London's Oyster system, for example, has hugely increased the throughput of public transport passengers through gates, and has also improved efficiencies in back-office functions. Likewise, in Domiciliary Healthcare, the benefits of NFC could also be vast, including minimum paperwork and administration overheads, as well as increased automation to speed everything up, cut error rates and reduce overall costs, thus allowing more support for the frontline services.

In addition, increased visibility on the time being spent and the activities being undertaken will provide more control (and will be less prone to anomalies), and the flexibility to amend schedules at a specific location and re-plan the rest of the day if needed – including contingency action to ensure the full day's work is completed – will also be extremely useful. Wouldn't we all want to

have these contingencies in our healthcare system? Fortunately, this kind of “smart” eHealthcare system may not be as far away as we think.