The National Programme for IT (NPfIT) is a long term plan that the Government hopes will create the technology infrastructure needed to support improvements in the quality of patient care. The NPfIT website (www.npfitt.nhs.uk) states “We are putting in place new technology to give patients more choice and health professionals more efficient access to information. Our aim is to help deliver a better NHS that gives public and patients services fit for the 21st century.”

The NPfIT is one of the biggest IT projects ever undertaken in the UK with contracts for over £6 billion to date covering periods of 7 to 10 years. The major project areas include:

- A centrally managed email and directory service provided free of charge to NHS organisations in England.
- The NHS Care Records Service where every patient’s medical and care records will be held electronically and will eventually be available securely online. The information will be safely and easily accessible to healthcare professionals and patients, whenever and wherever it is needed.
- Choose and Book, where GPs and other primary care staff will be able to book initial hospital appointments electronically, at a convenient date, time and place for patients, without sending referral letters to hospitals and waiting for a reply.
- Electronic Transmission of Prescriptions, a new service making it easier and more convenient for GPs to issue prescriptions and for patients to collect medicines.
- New National Network (known as N3) with sufficient connectivity and broadband capacity to meet current and future NHS needs.
- QMAS (the Quality Management and Analysis System) giving GP practices feedback on the quality of care delivered to patients measured against national achievement targets detailed in the GMS (General Medical Services) contract.
- Picture Archiving and Communications Systems (PACS) to capture, store, distribute and display static or moving digital medical images, supporting improvements to the patient’s NHS journey.

The National Programme for IT will also mark a revolution in the way health services are delivered in the UK and the key will be the access to information and the utilisation of IT solutions. While the NHS uses many advanced systems, the implementation of IT solutions has more often than not been locally focused, meeting the needs of individual healthcare organisations. For example, for years GPs have bought their own IT solutions to keep patients’ medical records including prescription information and to run appointment systems and other associated applications. These systems are usually standalone and are often incompatible with the systems of other doctors within the same geographic area.

Currently a patients medical records, including detailed information such as x-rays, radiology and pathology results and digital images may exist in a number of different places and on incompatible systems. If you are admitted to a hospital while away from home, your immediate injuries may be treated, but often it may be difficult to locate your current medical information.

This is all set to change. The Government wants a streamlined and much more efficient health service and is funding this to ensure that it gets what it wants. The aim will be to have a comprehensive and accessible information service that contains all the relevant patient information, available to any suitably qualified, relevant, healthcare professional from anywhere in the country. A comprehensive, electronic patient record system is a step in this process, but that is not all. The Government wants the National Programme for IT to help to ensure that the NHS can be as efficient as possible.

Most GP and hospital appointment systems have been manually based. Now they will be electronic and accessible so that appointments can be efficiently made, reducing the level of DNAs and improving patient choice and compliance.

At the centre of this programme is a belief that efficient and comprehensive IT solutions can enable this revolution. Not even the Government believes that IT solutions are the only requirement to make these step changes in the delivery of patient care. IT solutions alone cannot cure the sick but they can give the healthcare professionals more time to spend with patients rather than filling out forms and give them better and more up-to-date information on which to base their medical judgements.

To understand the difference the National Programme for IT could make, there is perhaps no better example than the Emergency Services. If someone is run over or has a heart attack in the street, the ambulance crew called to the scene may have to work quickly to save life. The National Programme for IT may be of some help in the process of dealing with the initial emergency, but it will help enormously at every stage after that.

The ambulance crew will need the medical history of the patient, any allergies or ailments. This information should be available almost immediately over a wireless network under the new system. What about more detailed information? There will be records of all the medical treatments the patient has undergone, including past x-rays, scans and prescription history.

The patient may need to go to hospital and, perhaps, require specialist care at a specific unit. The ambulance crew will have access to the required information to ensure that the patient can be delivered into the right environment to ensure that the right level of care can be delivered by the right healthcare professionals.

It’s an ambitious plan certainly, but the Government is determined to make it work. IT systems cannot cure sick people, but they can provide enormous help to those who can. A few years ago, this would have been a dream but now it is achievable.

Continued...
The man responsible for this project is the NPfIT Director General, Richard Granger. He believes that the main priority is “to deliver IT that is part of modernising the NHS and does things of value to patients.” To do this it must “enhance the work environment of the people who work in the NHS.”

Mr Granger believes that IT solutions can also offer “a step-change in the value for money enjoyed by the taxpayer”. Part of that, will come from the “step-change” that has taken place in the way NHS systems operate. In the past, the health sector like many others has been reliant on proprietary systems, often built from scratch and often with incompatibility built-in. Now we are in the age of compatible systems, built on industry standards. Suppliers such as Dell, one the largest providers of technology solutions to the NHS, can offer systems built on the most widely available standard in hardware, software, networking and communications that offer good value for money and can seamlessly fit into a project as complex as the National Programme.

Instead of building systems from scratch, NHS managers now have the choice of industry-standard off the shelf components that can fit within a national framework. It is this that makes projects, such as this, achievable.

But, as Mr Granger himself points out, many clinicians are wedded to the systems they already use, which may exist in an island of incompatibility, but offer functional and data richness that they are reluctant to lose. “This isn’t about sweeping the board clean,” Mr Granger says. “But about making best use of the existing asset base and having a coherent integration and upgrade programme” for the future.

The National Programme for IT is bound to continue to be at times contentious. There are many stakeholders in the NHS, not least the doctors and nurses, who will be acutely aware of anything that undermines their role with the consumers of health services – the patients. Already, there have been concerns about breaches in the security of the nascent, electronic patient records system.

But in the long term, the benefits of the new systems should well outweigh the problems. For years, the health service has been underfunded and in many cases, backwards, in IT terms. The National Programme for IT offers the opportunity for the UK not just to catch-up with some other nations in its use of IT in health care, but to leap ahead of all of them.

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**The key aims of The National Programme for IT (NPfIT)**

To provide an electronic health record for every person in the United Kingdom.

To provide a standard ‘information highway’ that allows healthcare professionals to share information to provide the best possible care.

To provide NHS clinicians with 24 hour on-line access to patient records and information about best clinical practice.

To provide members of the public (the customers) with online access to health information and care through on-line information services and telemedicine.

To provide health planners and managers with the information they need to use NHS resources effectively.

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**The four phases of the National Programme**

**Phase 0: April 2002 – March 2003**

The first phase was aimed at assessing the level of IT use in the NHS and determining the specifications and standards for the new IT infrastructure.

**Phase 1: April 2003 – December 2005**

Perhaps the most important early stage of the project would be the building of a secure high speed, Internet system accessible by all NHS staff. This was followed by the start of the online booking system and the provision of an electronic prescription service and the NHS Care Records Service (NHS CRS).

Perhaps the most controversial part of the National Plan, NHS CRS will provide an electronic health record (EHRs) for every NHS patient. The aim is to make the record of each patient as comprehensive as possible with information on every aspect of the patient’s care from the records of the family physician to notes on acute admissions to hospital. The aim is to make the information available to anyone who is involved in making a decision on the patient’s care.

**Phase 2: January 2006 - December 2007**

This phase brings together the online information on patient healthcare, the online prescription system and digital images (x-rays, scans, etc) so that doctors and other healthcare professionals would now have access to complete electronic records on each patient. For the first time a physician making a diagnosis should have ALL the relevant medical information available immediately. Other services available at this time will include a ‘patient portal’ allowing patients access to information and tele-monitoring will start to become available.

**Phase 3: January 2008- December 2010**

This phase should see telemonitoring services across 100% of all emergency response vehicles and homes that require it, as well as the completion of the NHS Care Record.

By this stage, we should all know if the National Programme for IT is working.