

The Report of the Information Technology Task Group of the Dentistry Modernization Steering Group

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Abstract: The Dentistry Modernization Steering Group was set up to monitor, evaluate and facilitate progress in the implementation of the Government's strategy for the dental services. Information Technology was an important part of this remit and the report of its IT Task Group is summarized here.

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Clinical Relevance: Seen in the context of the Government's NHS Information Strategy, the needs of dentistry have so far been overlooked in both national and local implementation plans. It is now recognized that there is much ground to be made up. UK dentists need to be aware of the key objectives of a Communication and Information Strategy for Dentistry identified by the Task Group.

In dentistry, most practices (perhaps 70%) have PCs and almost all use Microsoft operating systems (either DOS or Windows). The use to which these facilities are put ranges from basic word processing only, up to sophisticated paperless practice management systems operating at the chairside. No recent survey has been undertaken, but over 50% of practices currently transmit claims for payment electronically to the Dental Practice Board using Electronic Data Interchange (EDI), but it is estimated that perhaps only 40% of the systems employ full electronic records.

A major problem is that, at a clinical level, each practice system exists in

isolation. This has arisen because of the absence of a Communication and Information Technology (C & IT) policy for UK dentistry. As a result, there is at present no means by which clinically useful information can pass electronically between dental practices or from primary to secondary care services. For the same reason, the maintenance of existing IT systems is also proving expensive for some dentists as a period of rationalization is now taking place in the dental software world and many smaller companies are no longer developing their products or are being taken over by competitors. Neither do dentists have access to the NHSNet, leaving dentistry isolated from the information management changes currently taking place within the rest of the NHS.

An integral part of the Government's agenda for modernizing the NHS was the publication in 1998 of *Information for*

*Health*¹ which provided a framework for the development and use of information technology in the NHS. This blueprint is intended to provide professionals with the information needed to provide high quality healthcare whilst ensuring that patients and the public have the information they require to make decisions about their own health needs. This subject area (formerly IM & T – Information Management and Technology) is now known as Communication and Information Technology (C & IT).

The commitment in *Information for Health*¹ is to provide:

- Lifelong electronic health records for every person in the country.
- 24-hour online access to patient records and information about clinical practice for all NHS clinicians.
- Genuinely seamless care for patients through primary and secondary care services by sharing information within the NHSNet.
- Fast and reliable access to information and care through online information services.
- Information for health planners and managers to assist in making effective use of resources.

*Information for Health*¹ established that dentistry was included within the general principle of the need to develop integrated information systems for the National Health Service. However, no detailed guidance or timescale was

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provided for such an integration.

In September 2000, the Government set out plans for the improvement of NHS Dentistry in the document *Modernising NHS Dentistry – Implementing the NHS Plan*.² This concentrated on the provision of a more patient-centred and accessible dental service. At the same time, the Minister, Lord Philip Hunt, announced the setting up of a Dentistry Modernization Steering Group to be chaired by the Chief Dental Officer, Dame Margaret Seward. This Group was to:

help, monitor, evaluate and facilitate progress in the implementation of the Government's strategy for the dental services and for reducing health inequalities in England and to advise the NHS Executive accordingly.

IT TASK GROUP MEMBERSHIP

The IT Task Group was one of six formed from the members of the Dentistry Modernization Steering Group (DMSG). Its members were:

Chris Stephens, University of Bristol Dental School

Paul Averley, General Dental Practitioner
Andy Taylor, Department of Health, Richmond House

To this group the following were co-opted:

Tony Jenner, North West Regional Office, Department of Health

Paula Arthur, Dental Practice Board

Ken Eaton, National Centre for Continuing Professional Education of Dentists

AIMS

The Group's aim was to supplement the guidance given in *Information for Health*¹ and its update *Building the Information Core – Implementing the NHS Plan*.³ Its final report, which was adopted by DMSG in August 2001, outlined the requirements and business case for developing IT within dentistry in support of the Government's plan to modernize NHS dentistry. While the report focused on the

information needs for the provision and management of future dental services and its customers, it also took into account the Government's wider IT strategy as set out in the White Paper, *Modernising Government*.⁴

RECOMMENDATIONS

These formed what might be regarded as an outline for a Communication and Information Strategy for dentistry. The suggested aims were to:

- Provide effective communication within Primary Dental Care (i.e. between General Dental Services, Community Dental Services, Personal Dental Services).
- Provide effective communication between Primary and Secondary Dental Care and with Medical Care Services.
- Facilitate effective and appropriate referral between service providers.
- Provide appropriate C & IT training for the whole dental team.
- Encourage development of chairside clinical decision support systems for the dentist such as:
 - alerts and reminders;
 - diagnostic assistance;
 - treatment planning support, including teledentistry;
 - automatic radiographic image recognition;
 - online access to clinical guidelines and validated evidence.
- Support the monitoring and management of dental services through development of individual practitioner profiles.
- Facilitate the introduction of effective Clinical Governance patterns by allowing standardized clinical indicators to be used which are automatically aggregated at dentist level as well as practice level.
- Develop a national website as a repository for patient information and educational material. (Downloading from this site would be used as a means of providing practices with access to up-to-date printed information and interactive

computer-based patient education programs).

- Provide the means for online verifiable continuing professional development for the dental team.

THE IMPLEMENTATION OF A C & IT STRATEGY FOR DENTISTRY

Seen in the context of the Government's NHS Information Strategy, the needs of dentistry have so far been overlooked in both national and local implementation plans. It is now recognized that there is much ground to be made up. The initial steps outlined by the Task Group (Table 1) seek to address this. The aim is to have all dental practices computerized, and all branches of dentistry electronically linked and using a standardized electronic patient record, by 2005. This will provide the necessary infrastructure for delivering the modern and accessible dental care service of the future which was envisaged in *Modernising NHS Dentistry*.²

Since August 2001, there has already been significant progress on several fronts:

1. The NHS Information Authority has agreed that there should be a permanent dental member of its Primary Care Policy Board.
2. Work is already progressing on a dental input to the Electronic Library for Health.
3. A bid has been made to the NHS Information Authority for funding to connect all NHS dentists to the NHSNet.
4. The Dental System Suppliers' Association, which represents most of the major dental computer suppliers, is setting up a working group to develop an agreed standard for the transfer of dental data between systems.

POSTSCRIPT

A *Dental Update* editorial in the July/August 1999 issue pointed out that there was a need for dentists to acquire basic IT skills. Since that time, matters have moved on. The Information Authority have recently issued 'Health Informatics

Subject	Objective
1. C & IT strategy for dentistry	The publication of a much needed strategy for all branches of dentistry aimed at linking these to each other and to the rest of healthcare services. Such a strategy would need to recognize the importance of C & IT in delivering continuing professional education material to the dental team.
2. Co-ordinating future IT developments	The setting up of a national C & IT forum for dentistry to advise on medium and long term needs. A sub group of such a body could co-ordinate the implementation of an agreed dental C & IT strategy.
3. NHS number	The inclusion of the NHS number as part of the clinical record for dentistry as the first stage of having a single system as a basis of retrieval. This would need to be included on NHS forms, data transmissions and on patient records. It would require the agreement of the profession and possibly changing the GDS Regulations (Schedule 1, paragraph 25).
4. C & IT incentives and training	The overhaul of the current EDI grant for dentists such that it focuses on the support and maintenance and upgrading of practice systems for those undertaking NHS work. Appropriate C & IT training should be made available for the whole NHS dental team.
5. NHS connectivity	Establishing a scheme to encourage NHS dentists to migrate to the nationally preferred NHS communications network.
6. Digital imaging	Support for the use of digital cameras and digital radiography to facilitate the transmission of clinical data for advice, patient education, payment verification and audit.
7. The introduction of the Dental Electronic Record	The introduction of a standardized Dental Electronic Patient Record. This is a key objective. It requires a number of enabling stages including the accreditation of dental practice software systems (see 9). The software companies need to be given immediate notice of this change in order to have an opportunity to upgrade their software in time for this deadline.
8. Agreeing the dental component of an Electronic Health Record	This would ensure that dental records are integrated into the Electronic Health Record. This depends on, and is linked to, 7 above.
9. Dental Systems accreditation scheme	The introduction of a system of formal approval for those dental IT systems which can export and import clinical data to and from other accredited systems. Clearly this is dependant on 7 above being agreed at the earliest opportunity.

Table 1. Nine key objectives in an C & IT strategy for dentistry in the order in which they might be introduced.

Competency Profiles⁵ for all NHS staff including dentist, dental nurses and dental hygienists. This was followed by a national survey of informatics skills, the results of which were published in July 2001. Sadly, this survey did not include dentistry and there is now an urgent need to determine the skills gap we have within the profession.

ACKNOWLEDGEMENTS

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REFERENCES

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4. *Modernising Government – Modernising Health and Social Services*. National Priorities Guidance 1999/00–2001/02. London: Department of Health, September 1998.
5. Health Informatics Competency Profiles (<http://www.nhsia.nhs.uk/wowwi/pages/resources>).

ABSTRACT

NOW THE KITCHEN IS IN THE DOCK

Biocide Abuse and Antimicrobial Resistance – A Cause for Concern? A.P. Fraise. *Journal of Antimicrobial Chemotherapy* 2002; **49**: 11–12.

We are all now familiar with the concept of antibiotic resistance, partly caused by all of us over prescribing in the past.

Also familiar is the now widespread use of so-called biocides in the home for decontamination of kitchens and toilets. As well as the liquid products to pour and spray over the surfaces and round the rims, many household goods now have a biocide incorporated into them, namely Microban, which is a product found in some toothpastes, and, in mouthwashes, triclosan. In this leading article, by Fraise, in an issue dedicated to resistance, the author argues that, since there is a link between resistance of organisms to

biocides and antibiotics, the widespread use of biocides in our homes could exacerbate the global problem of microbial resistance. The public is lulled into a false sense of security by the mistaken claim that the use of such biocides reduces the numbers of microbes in the ‘dangerous’ environments of their homes; what is more likely to occur is the emergence of biocide-resistant strains of bacteria.

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