Response to NHS Chief Executive’s Open Call for Evidence and Ideas

Respondent ID: 226

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Introduction:

University Hospitals Birmingham NHS Foundation Trust (UHB) is a large acute teaching Foundation Trust with strong research links to both universities and pharmaceutical companies. The Trust has Innovation as one of its four core values as “finding a better way of working is everyone’s job” which underpin its vision to “deliver the best in care”.

The Trust has established a reputation for delivering successful innovation through its widespread use of clinical IT, new models of care, individual performance metrics and its quality strategy. The Trust has developed many of its innovations into scalable products which can either be adopted directly by other organisations such as its Birmingham Systems suite of health informatics tools or through joint development with commercial partners such as its Clinical Decision and Prescribing system [PICS], Patient “InTouch” kiosks and Cochlear drill.

UHBFT has developed an effective platform via its clinical decision system [PICS] to gather detailed information by each individual patient with regard to their drug regimes, drug administration, observations, diagnostic investigations, research status, clinical assessments [eg VTE, Falls etc]. The system also allows performance measurement of individual members of staff to identify and rectify poor performance. The use of the UHBFT PICS database has allowed the Trust to develop a research feasibility service for major commercial pharmacology companies allowing early stage assessment of drug trial feasibility within 5 days.

The Trust has also developed a number of quality and management dashboards feeding off various databases within the Trust to provide real time information via tools such as the ward dashboard [detailed information for each individual inpatient], clinical quality dashboard to measure ward and individual performance, electronic patient satisfaction questionnaires, workforce and activity. A further innovation has been the extension of PICS into outpatients within a clinical portal effectively removing paper records from outpatients. This system will be rolled out by the end of November creating a huge database of clinical information with a huge potential for research both within the NHS and in partnership with the pharmacological industry.

UHBFT has also developed its HealtheData suite of Health Informatics tools which allows for comparison against HES data of all acute care outcomes in England. This data has been further supplemented by the inclusion of ONS death certificate data which allows for the tracking of patients beyond their inpatient stay. The Trust has also in collaboration with the University Healthcare Consortium in the USA mapped all of England’s HES outcome data to the database held by UHC of the 170 leading US University Hospitals allowing for comparative outcomes analysis between the 2 systems.

The Trust fully supports the accelerated adoption and diffusion of innovations across the NHS. However as identified in the “NHS Chief Executive Innovation review – call for evidence and ideas” there are a number of barriers to Innovation. To improve the
level of innovation in the NHS we have made the following suggestions to the
questions posed in the call.

1. **Learning from elsewhere about adoption and spread**

Innovation takes a significant amount of time to move from inception through to
implementation and use. The UHBFT PICS system took over 10 years of
development to produce a Trust wide system covering all specialties. Creating a
leadership structure which allows for the long term development of innovation is
crucial to successful delivery which can be seen from the stability of leadership in
many private companies such as Apple, GE etc. The short term approach to
innovation adopted by many NHS organisations due to the high throughput and
relatively short tenure does not create an environment which is conducive to long
term development. A relationship of Trust with clinical staff built over a period of
time with a clear underlying strategy is fundamental to the successful delivery of
innovation.

2. **Actions at national level in the NHS**

**Data**

As identified above UHBFT has made extensive investment of resources in
developing a range of clinical and managerial IT products to improve performance.
Further development of the Clinical IT Infrastructure both internally and for external
use has been restricted by the barriers to data access from nationally procured
systems such as the Electronic Staff Record and IPM PAS. The security constraints
restricting the flow of information from the nationally specified systems has severely
restricted the development of clinical and managerial systems. The restriction
placed on importing information into IPM PAS and ESR has delayed the
development of innovative information systems [currently ESR data is supplied 6
weeks in arrears]. Opening up all nationally contracted IT systems to real time data
sharing would speed the development of IT systems.

**Intellectual Property**

As part of the alignment of system incentives to ensure they support and encourage
innovation, we would urge that the current provisions of the Department of Health’s
Standard NHS Contract for Acute Services (the *Standard Contract*) relating to
intellectual property be reviewed to ensure that the organisations that invest in the
development of innovations are appropriately rewarded. As you will be aware,
clause 23 of the Standard Contract currently requires all Providers to grant to their
commissioning PCT a licences of all IP used by the Provider in connection with the
provision of its services, irrespective of whether the PCT has a need to use such
intellectual property. The purpose of the licences is “for the purposes of the exercise
of their functions and obtaining the full benefit of the Services which shall include
the dissemination of best practice within the NHS”. The last eight words are of
particular concern as they could be interpreted to mean that the PCT can pass
rights to use IP on to other NHS and even private sector providers, with no financial
compensation to the Provider.
This conflicts with the basic principle that has underpinned the development of intellectual property rights, i.e. that those investing time and money in the development of intellectual property should be given exclusive rights to their creations, thereby providing an incentive for them to develop and share the information rather than keep it secret. The existence of IPRs has contributed significantly towards economic growth. This has long been recognised in theory by the Department of Health (“The major benefits of the exploitation of intellectual property for the NHS will be to improve patient care, to contribute to economic prosperity and to generate income”\(^1\) and “The Framework for managing IP is developed here in three main directions: IP generated by all NHS bodies through all their activities, not only from R&D, is now to be managed as an asset…; Section 5 of the Health and Social Care Act 2001 allows Trusts subject to the Secretary of State’s approval, amongst other things, to form or participate or invest in the formation of a company as a vehicle to exploit IP with commercial potential.\(^2\)"

The present drafting in the Standard Contract is unacceptable to Acute Trust as it undermines their ability to achieve a return on their investment in IP, with the potential to stifle development of IP. It will become even more inappropriate once commissioning is taken on by Commissioning Consortia. Licenses between the parties to the Standard Contract should deal only with the IP that is necessary for the performance of the Standard Contract.

The commitment to the sharing of best practice across the NHS remains, and this needs to be taken into account when considering ownership and exploitation of IP. However, there is a need to balance the principle of sharing best practice with that of rewarding those Trusts who invest considerable time and resources into the development of intellectual property, particularly in the present environment where Trusts are required to achieve financial balance or even surplus and are, through the patient choice agenda, expected to compete. Allowing other Trusts to have unfettered access to IP generated by one Trust with no return on the investment will stifle development and even lead to Trusts keeping their developments “secret” so as to retain a competitive advantage.

As your letter identifies, the NHS needs to adopt a framework whereby Trusts are encouraged to develop and share IP, as well as ensuring appropriate exploitation of NHS IP through the involvement of third party private sector organisations. Such a framework will need to facilitate the following:

- NHS bodies developing IP should be able to charge both NHS and private sector organisations to use IP. The level of royalty for NHS Trust users should be a balance between rewarding Trusts for developing IP and ensuring that the benefits are available across the NHS;

- Protect & police IP from “leaking” into private sector;

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\(^1\) DoH website http://www.dh.gov.uk/en/Researchanddevelopment/A-Z/DH_4002178

\(^2\) DoH - The NHS as an Innovative Organisation - A Framework and Guidance for the Management of Intellectual Property in the NHS (NB this same document considered that PCTs were best placed to exploit IPR).
- Commissioners should have a “free” licence to use IP belonging to provider
  Trusts only to the extent that such use is necessary for obtaining the full benefit
  of the Services under the Standard Contract;

- Private sector licences should be charged at commercial rates. However, due
  consideration will need to be given to competition and state aid issues and the
  Re-use of Public Sector Information Regulations.

Licensing arrangements could be entered into between Trusts. Alternatively, the
role of the present structures that have been created to encourage development
and exploitation of IP and the sharing of best practice within the NHS could be
expanded to facilitate the licensing of NHS-generated IP throughout the NHS in a
way vaguely similar to the Performing Rights Society, in that a central body would
sub-license IP to NHS Trusts and collect royalties for distribution to creating Trusts.
This central body would actively promote the available products and further
development would be encouraged due to the “publication” element of the
framework. A potential structure for this arrangement is shown in Appendix 1.

Trusts would license IP to this body for sub-licensing only to other NHS
organisations. It is possible that different licence structures might be needed for
different IP. For example, small software “add-ons” might be covered under a
general licence for a number of similar items, royalties being shared between the
creators. Larger applications may require their own specific licence, on a site or
user basis, with the possibility of support being provided.

Commercial arrangements, whether for the use of IP by private sector organisations
or the commercial development of IP by or with private sector organisations, could
continue to be pursued through the existing Innovation Hub structure. UHB is a full
member of the MidTech partnership in the West Midlands. We are concerned that
the current changes in the NHS which have led to reductions in funding to the
Innovation Hubs are already having a constraining effect on IP commercialisation
and it is important that both momentum and knowledge as well as the valuable
funding that IP commercialisation now provides to the NHS are not lost.

3. Actions at a local level in the NHS

UHBFT has been particularly successful in developing its feasibility service for
research trials. The main restriction to developing this facility further has been the
restriction to accessing local primary care data. Opening up pseudo anonymised
GP data would significantly improve not only research activity but also clinical
activity.

4. Actions by NHS Partners

Access to high quality support to NHS Organisations in delivering commercialisation
is imperative to provide the necessary skills and confidence to pursue market
penetration. The scaling down of organisations such as MidTech in the West
Midlands makes it difficult for smaller NHS organisations without the organisational
capacity to exploit potential innovations.
CQUINS should also be used more innovatively to provide capacity for innovation risk taking. A balanced score card approach to CQUINS based purely on outcomes and adopted generically across PCTs will not stimulate innovative practice. A health economy wide approach to knowledge transfer is also required to improve the spread of good practice.
Figure 1: Proposed structure for the Licensing of NHS-Generated IP