



Liberating the NHS: An Information Revolution RPS response to the consultation

The Royal Pharmaceutical Society (RPS) is the new professional body for every pharmacist in Great Britain. We are the only body that represents all sectors of pharmacy in Great Britain and currently have 49,000 members. There are approximately 75 pharmacists per parliamentary constituency, working in hospitals, industry, academia, GP practices, primary care trusts and community pharmacies. This response comes from its English Pharmacy Board (EPB) which is an elected body of pharmacists representing all sectors of pharmacy practice in England.

The RPS leads and supports the development of the pharmacy profession within the context of the public benefit. This includes the advancement of science, practice, education and knowledge in pharmacy. In addition, it promotes the profession's policies and views to a range of external stakeholders in a number of different forums.

Its functions and services include:

Leadership, representation and advocacy: promoting the status of the pharmacy profession and ensuring that pharmacy's voice is heard by governments, the media and the public.

Professional development, education and support: helping pharmacists to advance their careers through professional advancement, career advice and guidance on good practice.

Professional networking and publications: creating a series of communication channels to enable pharmacists to discuss areas of common interest.

The RPS's vision for pharmacy is that pharmacists should be the universally accessible frontline clinical provider of all aspects of pharmaceutical care and be responsible for all aspects of medicines use. Pharmacists aim to be the healthcare professional entrusted by patients to take care of their every pharmaceutical need.

Pharmacists are the experts in medicines – their management, their usage and information about them. Pharmacists can impact at different points on the patient pathway and lead to a reduction in medicines waste, a reduction in unplanned hospital admissions and better medicines adherence resulting in better patient outcomes.

The vision

The ultimate aims of this consultation are to ensure patients are provided with all the information they require to make informed choices that will lead to better outcomes for patients and improved quality of the services provided. They also aim to ensure that healthcare professionals have access to the best evidence based information at the point of care, irrespective of that healthcare professional's location.

In relation to pharmaceutical services and the pharmacy profession pharmacists believe that a number of solutions need to be put in place which will enable this vision to be realised and support patients to make informed choices and these are outlined in our response below.

Clinical Standards

Pharmacists fully support the call for clinical standards around collection and comparability of data and believe these should be set at a national level. This will ensure that as we move forward, data systems will become interoperable, use the same language and have a common understanding. This also relates to clinical terminology which pharmacists feel is particularly vital in the area of medicines management. Pharmacists would support the continuation of, and drive to, implement the Dictionary of Medicines and Devices (dm+d) project as this is providing a consistent resource around medicines and devices and is a developed standard for medicines nomenclature. Where possible, international standards such as SNOMED and ICD10 should be adopted rather than trying to invent new ones. The RPS is carrying out work to determine what needs to be captured through pharmacy systems to enhance the information capture and transfer and support government policy on IM&T. We will be looking at the service requirements for delivery of pharmaceutical services to influence the use of technology with system suppliers. It is not only about accurate recording of data but accurate coding of data. Pharmacists would also support the ongoing work on the 2D matrix bar code to enhance patient safety measures.

Communication

There needs to be better communication between all providers to ensure that the patient record is accurate and up to date. It is vital, if professionals are going to be able to share information and keep *'accurate and up-to-date health and care records'* as stated in this consultation that all relevant health and social care providers' systems communicate with one another and are all working to the same standards around terminology and coding. The recent review of the Summary Care Record (SCR) resulted in a situation where it will only be updated from the GP record and contains a minimum dataset. Whilst the RPS understands that further development is unlikely in the near future due to resource constraints, in time we would like to see the SCR expand to include additional data from other healthcare professionals, particularly when patients are transferred across care settings e.g. from hospital to care home. Only by allowing true integration with all relevant professions and care settings will the benefits of such a system be realised. It is essential that information is shared on any changes that had been made to medicines such as a change in dose, medicines being discontinued or started as well as any allergies or side effects experienced by the patient and any diagnostic results. The RPS would like clarification on the future of Healthspace. This system allows patients to access their own records and communicate, via Communicator, with a healthcare professional (currently only general practitioners). Pharmacists would like to see the ongoing development of Healthspace and for it to become a communications platform between patients and all health professionals.

Evidence based practice

The importance of developing knowledge of the clinical effectiveness of medicines in real practice is essential to complement theoretical / licensed use of medicines. Currently community pharmacists are undertaking medicines use reviews (MURs) with patients and the outcomes of these are not being captured in the patient record so other care providers are unaware that this service has been carried out. In England 1.7 million MURs were carried out in 2009-10 supporting the NICE clinical guidance on Medicines Adherence¹. In hospitals, pharmacists lead the implementation of NICE technology appraisals relating to drugs together with the review of their benefits to patients via clinical audit – data which needs to be compared more effectively. Such a task is currently virtually impossible due to the lack of structured coding within hospital IT systems.

¹ CG76 Medicines Adherence: Involving patients in decisions about prescribed medicines and supporting adherence

Integrated records

Pharmacists believe that the shift away from professional held records to patient managed records is the right one. However, we do not believe that this consultation has taken into account the complexity of a patient record with all its different component parts including services provided by independent providers. Currently, very few patient health records are fully integrated. There are many barriers to implementing a fully integrated health and social care record. Currently the healthcare and social care domains are very distinct so it will be very difficult to integrate these systems and make them interoperable. Such difficulties can be seen in practice around discharge information, and also on admission, where there is still little progress between linking secondary and primary care information. However, pharmacists would encourage developments that would support fully integrated records. The systems developed need to be universally available and provide a secure communication tool. Pharmacists would also like to see NHS net implemented universally for all pharmacists.

Pharmacists currently provide a number of services which produce information that is captured in systems that are separate to other parts of the NHS. For example, a number of community pharmacies are commissioned to provide flu immunisation services to members of the public and patients who are in the 'at risk' groups. Data shows that they are capturing a number of people who would not normally receive the vaccination as they do not access their GP regularly. However, this information is not currently recorded on the patient's health record and the GP would not necessarily be aware that they had been immunised. For population health and herd immunity, this information also needs to be passed onto national public health data capture service. Pharmacists are also providing private services, such as blood pressure monitoring, weight management etc as well as services related to self-care such as advice and provision of over the counter medicines. It would be beneficial, both for patients and professionals, for this information to be captured and shared. In the future we would see pharmacists directly referring to secondary care or for diagnostic testing in specific areas. This would mean that system interoperability will become even more vital. In secondary care the impact of pharmacists intervening in drug therapies especially when patients are admitted to hospital has been clearly quantified² yet problems with medication continues to be a major cause of re-admission to hospitals

Cultural change

In order for changes in 'Information revolution' to be delivered there will need to be a change in systems, mindset and use of data / information to really provide benefits to patients and professionals. Professionals will need to take on more of a role in ensuring that information they provide and record at the point of care is robust and accurate and data will need to be presented to patients in a format that they can understand. To encourage professionals to enter data, there should be a visible direct benefit to the professional's practice. Professionals will need to be more involved with the provision of information for patients so that patients can access the clinician's knowledge prior to the consultation with them.

Understanding information

Many patients will require assistance in understanding and interpreting the data. Without 'health literacy' patients will be unable to choose their health care on a reliable basis. Pharmacists are particularly well placed to help patients and the public interpret and understand information about

² Campbell, F. Karon, J. , Czoski-Murray, C. , & Jones, R. A systematic review of the effectiveness and cost-effectiveness of interventions aimed at preventing medication error (medicines reconciliation) at hospital admission. *Clinical Pharmacy*.

medicines. This consultation supports the development of aggregated data sets and making them accessible to patients and the public. There are a number of issues that need to be considered when doing this such as; what data sets are currently established and used, how identifiable is the data, how secure is the data and what release processes are in place to ensure that valid data cuts are made so that the data is understandable by the public. Also, the implications and repercussions of releasing large amounts of data into the public domain need to be carefully considered. We believe that a large amount of work needs to be undertaken around the interpretation of data, an area of work we would be delighted to be involved in.

The implementation of the information revolution will potentially require training for health and care providers and this does not appear to have been considered as part of this consultation.

General comments:

- Pharmacists support the direction of travel that this consultation has embarked upon. We agree that patients and the public should be provided with information on service providers and outcomes and that they should have access to their own health and social care records. However, we are concerned with the lack of detail within the document.
- It is not obvious, on reading the consultation, as to the extent the government wishes to continue with the IT systems and projects that have gone before and to what extent these will be discontinued. Greater clarity is required in this area as there is a need to know what will be developed and built upon in a constructive way going forward and how this will be done.
- Pharmacists would advocate a strategic approach to information where patients' needs are used to define information provision along the care pathway from prevention, early detection through to treatment and post intervention follow up
- It would be helpful if the strategy were to define clearly the notion of 'information'. Judging by the usage in the text, the term seems to mostly stand for data, either in a 'raw' or 'processed' form.
- The unique patient identifier will be the NHS number. In pharmacy systems this is not routinely recorded, both in hospital and primary care settings. However, we would support the use of the NHS number as the unique identifier.
- One of the areas of information provision that seems to have little mention throughout this consultation document is the libraries. Libraries can provide the background information which is required to inform the creation of intelligence. They also provide the infrastructure that licenses and process the many forms of evidence mentioned in the document. The costs of processing and creating user-friendly evidence for professionals, for example literature reviews, meta-analyses are not mentioned as these are services that are currently purchased
- To facilitate the development of the plans outlined in this consultation an urgent infrastructure audit is required which will ensure that all professionals have access to computing facilities and skills that match their needs.
- There is little in this consultation that discusses the information needs of commissioners. In order to commission services for their populations they will require information on outcomes, patient experience etc. The information will also be able to demonstrate performance against certain measures

Professional bodies, such as the RPS, have a key role in determining and disseminating best practice based on evidence. This needs to be recognised by the government and encouraged to continue wherever possible. Producing information is only one part of the puzzle. Publishing it and ensuring its correct use is another. Professional publishers do this extremely well and should be trusted to do this in a new free market for professional information in the UK. Professional point of care tools, such as the British National Formulary (BNF) should continue to be specified and supported as

reference knowledge bases against which others can be measured. Sources such as these should remain independent and may not be purchased centrally but should be specified by government as required minimum information sources for every healthcare professional. A range of knowledge suppliers should offer content in the context of clinical systems. For instance a suite of systems supporting e-prescribing could use readily available content to offer a drug database with clinical decision support for allergy duplicate therapy checking, enriched by global recognition and mapping from Martindale, interactions checking from Stockley and dose calculators from the BNF. This could be considered an active library at the professional's fingertips. Information for trained professionals is not easily converted to useful and safe information for patients so the government should continue to provide public information through bodies such as NHS Choices and NHS Direct. These bodies should be encouraged to interpret and make most appropriate use of professional information delivered in the marketplace.

Pharmacists can have a significant role in supporting the delivery of the Department of Health's Quality Innovation Productivity and Prevention (QIPP) agenda and information relating to medicines plays a key part in this. From pharmacovigilance information from community pharmacies to comparison of NICE drug and other high cost drugs (PbR excluded drugs) in hospitals and innovation in the development of pharmacogenetics, pharmacists have a significant role to play. Developing the interoperability of systems and improving communication along the patient's journey will both deliver quality improvement and savings for the NHS.

There are a number of IT related systems already in use or being developed which we believe should continue to be supported and extended. These include:

- ePACT as this supplies information on what has been dispensed and who prescribed it
- Pharmex which is the Department of Health's Commercial Medicines Unit database for secondary care drug purchasing
- dm+d which will provide the standards around medicines nomenclature
- 2D matrix bar-coding for medicines which will enhance patient safety and help to address concerns with regard to counterfeit medicines
- SNOMED

Q1: What currently works well in terms of information for health and adult social care and what needs to change?

There are good quality information systems in local areas but there needs to be more interoperability and connectivity together with more information being available to care providers across the whole patient pathway in order for these systems to be fully utilised, for example better connectivity between hospital and community sectors, better systems for comparison of drug usage data between hospitals and innovative systems for developing understanding of the actual clinical effectiveness of medicines. There also needs to be more work carried out to develop proper indicators and measures of service as well as outcomes related to medicines use and wider medicines management processes. There are issues around the quality of information available on the internet, where there is open access to information and no means of determining the standard of information available. This needs to be explored as part of this strategy. We would also encourage more sharing of best practice so everyone can learn from each other and improve; we can play a part in this.

Q2: What do you think are the most important uses of information, and who are the most important users of it?

Pharmacists believe that the most important uses of information are:

- Ensuring quality and safety of care
- Informing and empowering patients and service users

- Informing commissioning decisions
- Communicating evidence based practice
- Consistence and equality of care for patients

The most important users of information are patients and the public and health care professionals at the point of care. The consultation discusses the publication of aggregate data sets without compromising patient safety and that the data will be published in a basic form as close to the point of care as possible. It is unclear how data will be aggregated and made anonymous for those patients with rare conditions. This data should be available but in a format that patients can understand and interpret accurately.

Q3: Does the description of the information revolution capture all the important elements of the information system?

‘Information revolution’ focuses on the personal cycle of care but does not appear to take into account the relationship between the care pathway and evidence and information about medicines and procedures etc

In this section the consultation mentions that the changes asked in ‘Information revolution’ will be financially neutral. We believe that this is an extremely simplistic view and does not take into account the cost of interfaces for system connectivity or the cost of commercial technologies. There is also a huge gap between the creation of intelligence and developing this into easily understandable information. There seems to be little understanding that this is often a complex process requiring specialised skills. The diagram outlined on page 13 of the document omits the fact that background information is required in order to inform the creation of intelligence.

Q4: Given the current financial climate, how can the ambitions set out in this consultation - to make better use of information and technology to help drive better care and better outcomes - be delivered in the most effective and efficient way?

These ambitions can best be delivered by the development and provision of standards for system providers including clinical standards and clinical terminology, and by investment in interfaces. Also, interoperability and open systems will assist delivery in an effective way.

Some current services could be improved by making the system less cumbersome. For example, repeat dispensing, which has the potential to reduce waste medicines and enhance adherence, is a fairly cumbersome process. If there was the ability to process repeat prescriptions electronically and all software providers recognised the range of non-medical prescribers that could legally prescribe repeat prescriptions this would ensure a smoother, and easier to use system which would encourage more uptake.

Q5: Where should the centre be focusing its limited financial resources and role to achieve the greatest positive effect?

There should be a focus on getting system suppliers to work together and to deliver to the information standards developed, and to ensure systems are interoperable with one another. There also needs to be a focus on ensuring that systems meet local clinical need and are developed in a timely manner.

Pharmacists believe there should be a focus on how all relevant healthcare professionals can have access, both read and write access, to patient’s records to ensure continuity of service provision and accurate and up to date records.

Patients need to have greater control over their health and care records but it is unlikely that a 'one size fits all' approach will work as it will depend on the sensitivity of the record and the ability of patients to understand the information provided in them. Patients need to be allowed to correct any factual errors.

Q6: As a patient or service user, would you be interested in having easy access to and control over your care records? What benefits do you think this would bring?

Pharmacists believe that having access and control over your own personal health record is desirable and helpful for patients and the public. In due course patients should be encouraged to interact with their record e.g. record medicines taken, results from self testing etc.

If it is envisaged that all of the old paper-based information is included in an electronic patient record then this will create challenges as patients may want some old medicines removed that they have not taken for a number of years e.g. anti-depressants.

Patients should also be able to communicate with clinicians and an example of this is Healthspace Communicator. This provides a flexible approach for both patients and the professional and would be particularly beneficial in rural areas. However, there would need to be guidelines on the type of consultations that could take place / not take place electronically.

Q7: As a patient or service user, in what ways would it be useful for you to be able to communicate with your GP and other health and care professionals on-line, or would you prefer face-to-face contact?

Pharmacists agree that it would be useful to communicate with health and care professionals via an electronic medium in some circumstances, but face to face consultations should not be completely replaced by electronic ones. As patients take control of their records then they will need to understand the importance of sharing them with all relevant health and care providers, including independent providers for their own safety. The markets will need to develop new products for handling personal records and we would like to offer our support to assist in the design of these.

This section mentions that the NHS Commissioning Board will be developing data security standards. These standards will need to link with the information governance requirements that professionals are currently adhering to and also need to take into account standards for information for commissioning.

Q8: Please indicate any particular issues, including any risks and safeguards, which may need to be taken into account in sharing records in the ways identified in this consultation document.

There needs to be assurance that the issue of NHS managed sector and contractors is dealt with in an equitable way. Security processes need to take into account all contexts where a health and care record might be viewed and systems need to enable communication between professionals as well as between patients and professionals.

Q9: What kinds of information and help would ensure that patients and service users are adequately supported when stressed and anxious?

When stressed and anxious, patients need to time to take in information. It is important that patients are not deluged with lots of information just to suit the agenda of the system or organisation. They need to be given the right amount of information to make their decision but not saturated with data or information surplus to their requirements. The professional will need to understand what level of information the patient requires in these situations. There also needs to be recognition that not all patients are IT literate or have access to IT facilities. It would also be helpful

if patients and service users had the opportunity to access the same information again at a later date and if access could also be monitored that may play a part in patient adherence.

Q10: As a patient or service user, what types of information do you consider important to help you make informed choices? Is it easy to find? Where do you look?

Pharmacists believe that patients would look for the following information:

- About the procedure / service and evidence for it and support for it being undertaken by recognised expert bodies
- The clinicians providing the service / procedure
- Risks and benefits of the service / procedure
- Track record of the organisation or individual providing the service / procedure
- Practical information such as directions to the hospital, preparation beforehand, what to bring etc
- Clarity and openness about why a particular service or treatment is NOT available

Pharmacists believe that it would make it easier for patients if the information was available in one place, or signposted to form one particular area. It could also be useful to patients if the information provided was in the same format i.e. a template was used.

Q11: What additional information would be helpful for specific groups - eg.

- users of maternity and children's health services;
- disabled people;
- people using mental health or learning disabilities services;
- the elderly;
- others?

Information would need to be tailored for these particular groups but the basic information requirements are likely to be similar for example, information on medicines safety in relation to their conditions. If external providers with no healthcare experience are providing information this could cause problems. The EPB wants to ensure that good quality medicines information is distributed and used and would encourage the use of a standard online source for medicines information. Others may be those who do not have access or the ability to use IT systems – in which case direct contact with professionals will remain the mainstay of providing information.

Q12: What specific information needs do carers have, and how do they differ from the information needs of those they are caring for?

Carers need information that is directly relevant to patient care, for example, side effects to look out for and how to deal with them. Pharmacies and pharmacists, in particular, are an important source of information for self-care, both for those patients with long term conditions and patients presenting with acute conditions. Assistive technology and telemedicines could be developed to support pharmaceutical services. Carers also need consistency of information so that if they are caring for more than one person with the same condition they should be provided with the same information.

Q13: What are the information needs of people seeking to self-care or live successfully with long-term physical and mental health conditions and what support do they need to use that information?

People taking to self-care need clear, self reference information. Pharmacists believe that health and medicines information in schools, sourced from the NHS, would be an important integration to make to achieve an early understanding and enhance compliance and safety at later stages.

Pharmacists also believe that patients with long term conditions should be able to access their information on medicines needs through the pharmacy profession and for this reason we strongly support the ongoing development of 'the first prescription service' as part of the national contractual framework for community pharmacy.

Q14: What information about the outcomes from care services do you (as patient, carer, service user or care professional) already use?

Pharmacists rarely see a whole episode of care, but fragmented sections of it; however, pharmacists do contribute to patient outcomes. It would be useful to have information about patient benefits which are beyond our sphere of practice so pharmacists know what effect our actions are having on patient outcomes. In order to fully support patient outcome information, all the systems used across health and social care need to be developed using the same standards, including standards around terminology and coding, and must be interoperable and open to all relevant care providers.

Q15: What additional information about outcomes would be helpful for you?

Pharmacists believe the extension of Patient Reported Outcome Measures (PROMs) is a good way forward and will provide more reliable outcomes measures in relation to patient experience.

Q16: How can the benefits of seamless and joined up information be realised across the many different organisations (NHS and non-NHS) a service user may encounter?

If this could be attained then this would obviously make the patient's journey smoother and less complicated. The systems being used by the different providers need to be able to integrate, i.e. communicate technically with one another based on agreed standards and data-coding standards, and pass on information about patients. This is particularly important when care is transferred between different settings. IT systems across health and social care need to be interoperable.

Q17: For which particular groups of service users or care organisations is the use of information across organisational boundaries particularly important?

As mentioned above, when a patient is transferred across care settings this is often when information is lost or misinterpreted or not recorded accurately such as those who frequently go in and out of hospitals and those in care home settings as well as patients on multiple or complex medicine regimens such as transplant patients. If this strategy is to become a reality then this area requires more focus and is really important to the young, old, vulnerable and complex patients as well as those recovering from acute interventions.

The use of information across organisational boundaries is also really important for those providing care out of hours and this may particularly apply to pharmacies whose opening hours often exceed other provider organisations.

Q18: What are your views on the approach being taken and the criteria being used to review central data collections?

While we agree that central data collection is to be encouraged it should not be done in the vacuum of agreed data-coding standards and a strategy to encourage ease of communications between systems.

Q19: How could feedback from you be used to improve services?

Feedback from patients can provide a patient-focused opinion on service design. They can also support commissioning decisions and identify public health interventions. As outlined in our first section relating to the vision, pharmacists are providing a number of interventions with patients that will benefit the patient and deliver better outcomes. However, this data is not currently amalgamated with the patient record so is lost when assessing outcomes.

Also, users of the IT systems should have the ability to feed back to system suppliers what works and what doesn't work so that systems are continuously improved and updated.

Q20: What would be the best ways to encourage more widespread feedback from patients, service users, their families and carers?

Feedback methods need to be kept simple. Data should only be collected once and then used for a variety of purposes so patients are not continually being asked to provide information and feedback. Electronic tools such as feedback 'booths', email and social networking need to be considered. We also believe that pharmacies could provide a convenient place for feedback to be collected.

Q21: What are the key changes in behaviour, systems and incentives required to make the NHS and adult social care services genuinely responsive to feedback and how can these be achieved?

The services need to be focused on the patient's needs and professional information requirements rather than administrative processes. Evidence based commissioning will ensure that services which deliver clear evidenced outcomes are invested in and developed where other services are not.

Q22: Which questions, if asked consistently, would provide useful information to help you compare and choose services?

- How did the service provided help you?

Q23: What will help ensure that information systems - and the data they collect - are appropriate to support good commissioning at different levels, including decisions by individual patients, GP practices, GP consortia, service providers, local authorities and the NHS Commissioning Board?

The use of consistent data standards will help to ensure information produced is comparable. Also, requirements for interoperability and ease of communication between and among systems will ensure that they are appropriate.

Q24: How can health and care organisations develop an information culture and capabilities so that staff at all levels and of all disciplines recognise their personal responsibility for data?

In order to develop an information culture there is a need to agree standards for information requirements to support clinical practice and principles of information governance that all practitioners and providers can sign up to. This should be carried out in a practical way and not wrapped up in legal jargon. Information can only be effectively shared if it is accurately coded.

Pharmacists believe that 'the single source of information about patients' should also include the information or data that is used to make the decision and that if this is to be available in every care setting then the technical infrastructure has to be in place to support it, which is currently not the case.

The principles and aims espoused by the *openEHR* community (found at <http://omowizard.wordpress.com/2010/08/23/openehr-the-world%e2%80%99s-record/>) should be pursued to ensure the creation of a single Electronic Health Record (EHR) that meets everyone's requirements. This will also enable healthcare professionals to view the patient holistically rather than in silos.

Q25: As a clinician or care professional, how easy is it for you to find the evidence you need to offer the best possible care and advice? What could be done better?

For the pharmacy profession it is fairly easy to find evidence for prescription medicines but this information is not so readily available for over the counter (OTC) medicines, especially for those that were not previously a Prescription only Medicine (POM). Pharmacists also have a role in signposting

patients to evidence based information. There is a need to build up evidence of the clinical effectiveness of medicines in real practice and in real time.

There is little evidence to support the agenda of self-care and as there is a move towards patients taking more responsibility for their care this will need to be addressed.

It is not always easy for pharmacists to access local policies in order to understand why a particular treatment or piece of information has been given to the patient. Pharmacists need to either be incorporated into the NHS internet structure within primary care or be party to the relevant information.

Q26: Clinicians, practitioners, care professionals, managers and other service provider staff will be expected to record more data and evidence electronically. How can this be facilitated and encouraged? What will be the benefits for staff and what would encourage staff to reap these benefits?

Pharmacists believe that the systems used can facilitate data collection by making it easy to record data, by transferring data where necessary and by populating the required data fields in advance where the information is already available, for example, some pharmacy systems support MURs by populating the patient details rather than the information having to be entered again by hand.

Pharmacists believe that tools to support the comparison of drug usage in secondary care should also be developed. Very importantly, the overall culture needs to change so that information is not seen as a specialist area and that all professionals accept responsibility for recording the required information / data at all levels.

One of the benefits is the ability to have an audit trail of who has entered what and when.

Q27: What are the key priorities for the development of professional information management capacity and capability to enable the information revolution?

Each profession should have an information management training policy for all levels of professional activity such as undergraduate, pre-registration, post graduate. There should be continued investment in systems. The use of data and information within systems, by patients and commissioners, would drive expectations for better use.

Q28: The 'presumption of openness' in support of shared decision-making will bring opportunities - but may also generate challenges. What are the greatest opportunities and issues for you a) as a care professional? or b) as a services user?

The presumption of openness will cause health professionals to reflect critically on their practice and some professionals could find this threatening, particularly if there are competence or service management issues.

Q29: What benefits and issues do you think will arise as a greater range of information providers offer information? How could issues be addressed?

The issues that arise are likely to be around governance, quality of information and the ability of individual practitioners, patients and the public to process the information in context of practice.

Q30: Would there be benefits from central accreditation or other quality assurance systems for information providers and 'intermediaries'? Would factors such as cost and bureaucracy outweigh any benefits?

Pharmacists would agree that central accreditation would have its benefits and a lean approach of 'do once and share often' would be a good approach to adopt. There does however need to be links

with local decision making to ensure a 'local flavour' but we agree that all the work required to assess the evidence should not be done multiple times across the country. All uses of new technology should continue to be subject to information governance and security considerations.

Q31: How can a health and social care information revolution benefit everyone, including those who need care most but may not have direct access to or know how to use information technology? This might include those who do not have access to a computer or are remote and cannot access the internet, people using mental health or learning disabilities services, older or disabled people or their carers who may need support in using technology, and those requiring information in other ways or other languages.

To ensure that information sharing benefits all service users it is important not to just consider capture and transfer of the data using IT but also dissemination by non IT based methods, particularly for those people who are not used to using computers. The early release of current data sources should be carried out in forms that are meaningful to lay people and service users. Levels of interpretation may be required, and it may be necessary to select certain data sets in the first instance.

Q32: Are there other datasets that you think could be released as an early priority, without compromising individuals' confidentiality? Would there be any risks associated with their release - if so, how could these be managed?

Standard data relating to the efficacy and cost effectiveness of medicines could be considered. Supply chain efficiency is an area where IT could have potential benefits and the elements to consider would be e-procurement and use of standard drug datasets to support purchasing, prescribing and dispensing.

Pharmacists believe that national information standards would assist the information revolution, with the dm+d continuing to be developed to form the medicines standard. Standardising Care Records will also have benefits but the standards need to be agreed across all professionals and the terminology used also needs to be standardised. This will enhance interoperability between systems.

Pharmacists welcome the emphasis on EPS as its dm+d coding and national spine will be vital in enabling interoperability but work needs to be carried out to determine how it will link with secondary care, which does not currently use this system, and other medicines management systems.

To enhance patient safety we would also support the continuation of the 2D matrix bar code development for medicines.

Q33: The information revolution can deliver many improvements. What are particular benefits or other challenges - including sustainability, business, rural or equality issues - that need to be considered in developing the associated impact assessment?

The key issues that IT can assist with are; personalisation of care, provision of consistent care (due to standardised data sets and algorithms), and access to services.

Q34: Are there any critical issues for the future of information in the health and adult social care sectors that this consultation has not identified?

Whilst the consultation has mentioned clinical standards we do not believe that it has recognised the value of data standardisation or interoperability standards to enable the underpinnings necessary to facilitate the 'Information revolution' proposals. This consultation has not dealt with the area of suppliers' expertise and the relationships suppliers have with the NHS. It has also not focused enough of the use of the data sets to inform commissioning decisions. We also think that

there is a major gap in skills, resources, access and understanding of IM &T across health and social care providers which has not been identified as part of this consultation.