 NHS Number Programme NHS Connecting for Health Vantage House Leeds	NHS Number Standard for Secondary Care (England)			
	Sponsor	Professor Sir Bruce Keogh	Version Number	1.0
	Developer	Deborah El-Sayed Tim Pilkington	Version Date	20-Dec-08

NHS Number Standard for Secondary Care (England)

Full Operational Information Standard

Amendment History:

Version	Date	Amendment History
0.1	07-Nov-08	First draft – submitted for ISB appraisal
0.2	25-Nov-08	Updates following ISB appraisal; Storyboards removed (now in Guidance); Implementation Planning removed as external appendix (now in Guidance); Communications Plan appendix renamed from S2 to C1; all external appendices prefixed with “SC-”.
0.3	28-Nov-08	Submitted to ISB
0.4	08-Dec-08	Updated following ISB comments. Submitted to ISB board.
1.0	31-Dec-08	Updates to wording for conformance timelines. References to Operating Framework 2009/10 updated. Base-lines for publication.

Related Documents:

These documents will provide additional information.

Ref no	Doc Reference	Title	Version
R1	NPFIT-SHR-QMS-PRP-0015.13	NHS CFH Glossary Of Terms (consolidated)	v13
R2	http://www.cui.nhs.uk	NHS Number Input and Display – User Interface Design. Prepared for NHS CFH by Clinical application and Patient Safety Project; NHS CUI Programme Team	March 2008
R3	http://www.cui.nhs.uk	NHS CUI Design Guide Workstream – Design Guide Entry – Patient Banner Prepared for NHS CFH by NHS CUI Programme Team	January 2008
R4	http://www.datadictionary.nhs.uk/data_dictionary/data_field_notes/n/nhs_number_de.asp	NHS Data Dictionary definition of the NHS Number	
R5	http://www.govtalk.gov.uk/gdsc/html/default.htm	UK Government Data Standards Catalogue (GDSC)	Version 2.0, Agreed January 2002
R6	NPFIT-FNT-TO-DPM-0789.01	PDS Compliance documentation	
R7	http://www.npsa.nhs.uk/nrls/alerts-and-directives/notices/nhsnumber/	Safer Practice Notice – NHS Number	September 2008
R8	http://www.npsa.nhs.uk/nrls/alerts-and-directives/notices/wristbands/	Safer Practice Notice – Standardising wristbands improves patient safety	July 2007

R9	http://www.npsa.nhs.uk/nrls/alerts-and-directives/notices/blood-transfusions/	Safe Practice Notice – Right patient, right blood: advice for safer blood transfusions	November 2006
R10	http://www.isb.nhs.uk/docs/instantiations/nhs-number	NHS Number Standard for General Practice (England)	December 2008

Appendices to the Standard:

Appendix	Type	Title
	Guidance	NHS Number Programme Implementation Guidance
SC-A1	Analysis and Consultation	Exemplar Community
SC-A2	Analysis and Consultation	NPfIT Programmes
SC-A3	Analysis and Consultation	Suppliers
SC-A4	Analysis and Consultation	Metrics and Current Situation
SC-E1	Exemplar Site Report	North Bristol Trust
SC-E2	Exemplar Site Report	South Staffordshire PCT
SC-E3	Exemplar Site Report	Sheffield Teaching Hospitals Trust
SC-E4	Exemplar Site Report	Nottingham University Hospitals Trust
SC-E5	Exemplar Site Report	Calderdale and Huddersfield Foundation Trust
SC-E6	Exemplar Site Report	North Cumbria University Hospital Trust
SC-E7	Exemplar Site Report	Leeds Teaching Hospitals Trust
SC-E8	Exemplar Site Report	Royal Berkshire Foundation Trust
SC-C1	Supplement	NHS Number Programme: Summary Communications Plan

Glossary of Terms:

List any new terms created in this document or any short forms (abbreviations, acronyms).

(See also Related Document {R1}.)

Term	Acronym	Definition
Chief Information Officer	CIO	Strategic Health Authority CIOs are responsible for the implementation of the new systems and the delivery of benefits at an organisational level across their SHA area
Determine (NHS Number)		The word “determine”, with respect to the NHS Number, for the purpose of this document, means either: <ul style="list-style-type: none"> to find or trace, in either a local or national system/service, the NHS Number (using any relevant demographic information) or; to use an NHS Number to identify a record, in either a local or national system/service, and confirm that relevant demographic information on the record matches that given by, or about, the patient.
DTS	DTS	Data Transfer Service - a tactical solution for secure application-to-application messaging that avoids the need for end sites to deploy a Message Transfer Agent (MTA).
General Practice		The Primary Care service which is the first level contact with people taking action to improve health in a community. All initial (non-emergency) consultations with doctors, nurses or other health staff are termed primary care as opposed to secondary healthcare or referral service. For the purpose of this document, General Practice refers to Medical General Practice only.
General Practitioner Systems of Choice	GPSoC	GP Systems of Choice scheme aims to ensure progressive improvement of the system functionality available to GPs and their patients.
HES	HES	Hospital Episode Statistics
IG	IG	Information Governance
Information Governance Statement of Compliance	IGSoC	The IGSoC is the agreement that sets out the information governance policy and terms and conditions for use of NHS Connecting for Health services.
IM&T	IM&T	Information Management and Technology, also known as IT or ICT
IQAP	IQAP	The Information Quality Assurance Programme
ISB HaSC	ISB HaSC	Information Standards Board for Health and Social Care
LSP	LSP	Local Service Provider

NASP	NASP	National Application Service Provider
NHAIS (Exeter)	NHAIS	National Health Applications and Infrastructure Services (also known as the Exeter system)
NHS Central Register	NHSCR	The National Health Service Central Register (NHSCR) compiles and maintains a computerised record of NHS patients. NHS patients are those who are registered with an NHS general practitioner (GP) in England, Wales or the Isle of Man. The NHSCR also records and handles the transfer of medical records of dependants of service personnel between service medical units and civilian doctors on behalf of the Ministry of Defence. NHSCR is part of the Office for National Statistics.
NHS CFH	NHS CFH	NHS Connecting for Health
NHS CRS	NHS CRS	NHS Care Records Service, which is creating an electronic care record for all patients
NN4B	NN4B	NHS Number for Babies (service). The service that allows the registration of newborns on the PDS and therefore the allocation of an NHS Number.
NPfIT	NPfIT	National Programme for IT
NSTS	NSTS	National Strategic Tracing Service
Patient Care		The services rendered by members of the health profession and non-professionals under their supervision for the benefit of the patient.
Patient Identifiable Data		Information in electronic or paper format which identifies or relates to a particular patient or their health care
PDS	PDS	Personal Demographic Service: The national database that holds patient demographics data for the NHS.
PMIP	PMIP	Pathology Messaging Implementation Programme
Secondary Care		Specialist care traditionally provided from a hospital setting in support of the Primary Care team; e.g., surgery or specialist medical services, including old age medicine and mental health services. Also exists in other settings; e.g., in mental health and community settings. For the purpose of this document, Secondary Care includes any specialist services delivered from a Secondary Care setting, also known as Tertiary Care. Mental health and community care settings are excluded (see section 2.1).
Spine		Infrastructural tool to provide a persistent, uniform record of key patient-related information to all involved in a patient's care, regardless of venue. Their record is designed primarily to assure integrity of care delivery and to co-ordinate care delivery that involves multiple providers or institutions.
Use		To put into service; to employ for a particular purpose or for its inherent purpose. For the purpose of this document use of, usage, use or using the NHS Number will refer to how and where it is employed to identify patients.
Validated NHS		A valid NHS Number is one that has the correct format and passes the

Number		check digit calculation.
Verified NHS Number		A verified NHS Number is one where the patient's identity has been cross-checked using demographic details on the NSTS or the PDS. Note: This is only an overview definition for the purpose of this document; full details can be found in the PDS Compliance Baselines.

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1. Standard Demographics

1.1. Name of Standard

The Full Standard of: NHS Number Standard for Secondary Care (England)

This Full Standard builds upon the approved:

- Requirements Standard: NHS Number Standard for General Practice and Secondary Care (England), September 2008.
- Draft Standard: NHS Number Standard for Secondary Care (England), November 2008.

1.2. Sponsors

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The NHS Number Programme team will ensure the maintenance of the Standard. This work will be conducted in association with the Personal Demographic Service National Back Office (NBO) team who will have operational responsibility for the management of NHS Numbers; the National Back Office team will process and resolve any data anomalies in respect of particular patient records or the NHS Numbers recorded against those records.

1.4. Commercial Issues

There are no Intellectual Property Rights (IPR) issues. The following sections provide further information on specific aspects of commercial issues.

1.4.1. Links with Intellect Healthcare Group

Intellect Healthcare Group is a trade association created to give a single voice for the IT, telecommunications and electronics industries in the UK. At their quarterly conference held on 25th June 2008, suppliers were asked whether the development of functionality described within the Advanced Notification (AN0803) for NHS Numbers in General Practice and Secondary Care was feasible. Responses provided by all suppliers in attendance was either they already have the functionality or would be in a position to include functionality for NHS Numbers as currently articulated within AN0803.

In conjunction with Existing Systems Programme within NHS CFH, Intellect Healthcare Group members have been engaged in a more detailed technical discussion with the Standard developers. Intellect Healthcare Group circulated information regarding the NHS Number Programme and, during the development, the proposed Standard to all members. Further details of consultation with Intellect can be found in section 3.4.

1.4.2. Links with NHS Connecting for Health commercial teams

A commercial impact review has been carried out across NHS Connecting for Health contracts, and it has been confirmed that use of the NHS Number as a patient identifier is an existing mandate for LSPs in Schedule 1.1 (Authority [NHS] Requirements) of LSP contracts:

102.5.4 The Service shall provide a method to ensure that all systems and services for which the Contractor is responsible shall use the national Personal Demographics Service (PDS) as their principal source of patient demographic information and the NHS Number as a common unique patient identifier. The Service shall be able to display any discrepancies between the PDS and information held on a local system at the point of PDS retrieval, and allow the End User to pick and choose individual data items from the PDS or local dataset, without using serial change number (SCN) as the sole indicator of whether there are any changes to be applied to the local dataset or not.

(Note: Underlined for the purpose of this document)

Similarly, NASP contracts stipulate the use of the NHS Number as the national unique patient identifier.

The LSP and NASP contracts stipulate that Data Set Change Notices (DSCNs) should be developed and deployed at no extra cost, therefore any refinement and further clarity highlighted in this standard is expected to be delivered within existing contracts.

1.4.3. Procurement and STEP

STEP (Standards Enforcement in Procurement) is a tool that NHS organisations procuring new IT systems can use to ensure that appropriate NHS policy and information standards are included within their resulting contracts. The STEP questionnaire forms part of the procurement process: the document is sent out to prospective bidders asking for information on how well their systems comply with standards and giving evidence of conformance where appropriate.

The STEP questionnaire will be updated to include details from this Standard in order to enable conformance in all future procurement. This is expected to be available in the first half of 2009.

The current NHS Number Policy and Guidance for STEP is shown in Appendix 5.

1.5. Customer Need

Safe clinical treatment of any given patient relies on the information held, on paper or in an electronic form, being particular and pertinent to that patient. The delivery of patient care is now often shared across a number of clinical areas and NHS providers, so delivering safe patient care requires information related to a patient to flow between these NHS clinical or business areas.

This Standard addresses the needs of the following stakeholders related to Secondary Care:

- Patients
- NHS staff (directly or indirectly involved in patient care)
- Staff contracted to, or in organisations contracted to, the NHS (directly or indirectly involved in patient care)
- NHS CFH staff
- Suppliers providing IM&T systems and services for NHS care

A unique number to identify a patient is critical to safe patient care as names are often the same and addresses and other demographic data for a patient may, and often do, change over time. As patients use a wider range of services across a wider range of organisations, over their lifetime, multiple localised records will build up and the demographic details will vary from organisation to organisation.

Local identifiers are currently used to identify patients within most secondary care settings however these are not useful outside of a single organisation.

The (new format, 10 digit) NHS Number was developed in the last decade to provide a unique reference number for all patients. This is a nationally unique patient identifier and means that records from a variety of settings can be linked to the right person (demographic record). It is important to note that the NHS Number does not guarantee the identity of the person (i.e. that the demographic information used to determine the NHS Number of the person is valid for that person); this would require a passport or other proof of identity; this is beyond the scope of this standard.

The NHS Number is the only National Unique Patient Identifier in operation in the NHS at this time.

Policy references to the NHS Number

The vision described within 'Delivering 21st Century IT – National Strategic Programme' (NSP), released in 2002, was based upon an assumption that unique patient identification was achievable. The NSP was concerned with major developments in the deployment and use of Information Technology (IT) across the NHS in England. It aimed to:

“..Connect delivery of the NHS Plan with the capabilities of modern information technologies to:

- *Support the patient and the delivery of services designed around the patient, quickly, conveniently and seamlessly;*
- *Support staff through effective electronic communications, better learning and knowledge management, cut the time to find essential information (notes, test results) and make specialised expertise more accessible;*
- *Improve management and delivery of services by providing good quality data to support the National Service Framework (NSF), clinical audit, governance and management information. The programme focuses on the NHS but parallel developments in Social Care IT will also be taken forward.”*

The Department of Health (DH) introduced the current NHS Number in 1996; adoption by individual organisations was at this time encouraged but optional. The NHS Number was developed such that there is no link between the allocation of an NHS Number (implying registration with the NHS) and the entitlement to free care.

From 1 Apr 1998, it was mandatory in all Commissioning Data Sets (CDS) in all NHS Trusts, and Health Authority data flows. Specifically, the NHS Number is mandated in the Admitted Patient Care CDS as defined in the Data Set Change Notice DSCN44/96/P37¹. Despite the mandate, most trusts have not been able to achieve this due to the various types of patients – such as overseas visitors and private patients – that do not have NHS numbers. This Standard helps to clarify this situation

'Building the Information Core – Implementing the NHS Plan' also detailed goals for NHS Number usage, in that it set targets that all pathology results should include the NHS Number by 31 March 2002, and also that all electronic communications about patients should include the NHS Number as verified by National Strategic Tracing Service (NSTS) by 31 March 2003. The NHS failed to meet these targets and therefore the safety benefits associated with unique patient identification have not been fully realised to date.

The major policy objectives for introducing the NHS Number included:

- Tackling the proliferation of local identifiers throughout the NHS. This meant (and still does) that patients could have several numbers to identify them, leading to confusion that could impact the safe and effective delivery of care.
- Addressing the widespread concerns about the use of patients' names and addresses and the implications of that use for patient confidentiality

The NHS Strategy 'Protecting and Using Confidential Patient Information' developed to support Building the Information Core recognised that the *"availability of a unique patient identifier is essential for confidentiality enhancing technology"* and cited the NHS Number as the only viable nationally unique identifier.

The NHS Operating Framework 2008/9 refers to the mandated use of the NHS number in all relevant Clinical and Administrative systems

The IM&T guidance also states that the NHS should be *"...enabling consistent use of the NHS Number to reduce the number of data quality issues due to mis-associated records"*.

It calls for all NHS Providers to plan for the complete adoption of the NHS Number as the mandated National Unique Patient Identifier in all relevant administrative and clinical systems and to ensure that the NHS Number is used in all patient communications;

The Care Record Guarantee - Our Guarantee for NHS Care Records in England

The NHS Care Record Guarantee is a commitment that the NHS will use records about patients in ways that respect the patient's rights and promote the patient's health and wellbeing.

*"We [The NHS] have a duty to:
keep records about you confidential, secure and accurate"*

¹ Copies of this DSCN can be requested from <http://www.connectingforhealth.nhs.uk/dscn/dscn199691>

Use of the NHS Number as the primary patient identifier will help to reduce potential issues when identifying a patient, such as same names or a changed address. In addition this will help to reduce duplication in local numbering systems, for example, two patients having the same number, or one patient having more than one number. All of this will help to maintain accurate patient records.

“The NHS Care Records Service will:

hold electronic records about your healthcare in national systems so that, wherever in the country you need care, healthcare professionals can have access to the most up-to-date information;”

The NHS Number is the key component that allows patients’ information to be shared safely between organisations.

Delivering the Aims of the NHS

The NHS Number Programme has been set up to support the NHS in delivering these aims; the expected benefits that it is hoped this will achieve are as follows:

“

- *minimise the clinical risks caused through misallocation of patient information;*
- *resolve some of the barriers to safely sharing information across healthcare settings; and*
- *assist with long term follow up processes and Clinical Audit.”*

Professor Sir Bruce Keogh in his letter to NHS Chief Executives and NHS Medical Directors, 13 May 2008²

It is understood that the NHS Number has been widely adopted by NHS organisations and many NHS providers report high availability of the NHS Number on local patient records. However in relation to information standards the NHS Number remains optional and this mandate as an Operational Information Standard is required to reflect, support and enable the mandate set out in the NHS Operating Framework 2008/9.

This standard seeks to explain what is required to achieve complete adoption and to give guidance to secondary care providers and IT system suppliers on how this can be achieved.

It is noted that there are specific patient groups and situations within secondary care where using the NHS Number may prove complex, these include:

- Accident and Emergency
- Emergency admissions
- Patients that cannot be identified
- Home country, cross-border patients (e.g. Scottish patients using services in England)
- Overseas patients
- Private patients using NHS services
- Patients who wish to remain anonymous
- Mental Health patients
- Sexual Health patients
- Service Personnel and Service Dependants
- Prisoners.

More details are available in section 3.2.5.

² Gateway ref: 9801, copies available from

www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_084729

NHS Number Standard for Secondary Care (England)
Full Operational Information Standard

It is important to note at this stage that adoption of the NHS Number as the National Unique Patient Identifier will not mean that all existing records will need to be re-indexed to use the NHS Number as the primary key, but patient record systems will need to be able to store, search and retrieve a patient's NHS Number.

2. Draft Stage Updates

The Draft Stage was approved by the ISB HaSC board on 5th November 2008.

2.1. Restated Purpose and Scope

Purpose

The NHS Number has been adopted by secondary care organisations and many report high availability of the NHS Number on local patient records. However in relation to information standards the NHS Number remains optional and this mandate as an Operational Information Standard is required to reflect, support and enable the requirement set out in the NHS Operating Framework 2008/9.

This standard seeks to explain what is required to address the Customer Need, detailed in section 1.5, and to give guidance to secondary care providers and IT system suppliers on how this can be achieved.

The NHS Number has been defined in the NHS Data Dictionary and is in use within the NHS; however, there is no clearly defined guidance or standards indicating how, when and why the NHS Number should be used. The use of the NHS Number is inconsistent, both in quality and quantity, across NHS organisations.

This Standard forms part of a wider initiative: the NHS Number programme has been set up to provide information, guidance and support to the NHS to effect the necessary business change across all care settings.

Scope

Use within Secondary Care provider organisations

(both NHS and Independent Sector Healthcare Providers providing NHS commissioned care)

- The use of the NHS Number is fundamental to the operation of the NHS Care Records Service (NHS CRS), as well as NHS operations in general, and must be used in all NHS care settings (unless stated in the Out of Scope section below) as the National Unique Patient Identifier. Additionally the NHS Number must be included on all patient level communications that transfer/cross NHS system or organisational boundaries.
- This Standard is applicable for use in all Secondary Care settings (unless stated in the Out of Scope section below). This Standard should be applied to all Patient Identifiable Data and records regardless of their retention form, i.e. hard copy or electronic.
- This Standard is also applicable for use in any other organisation that may act as a contractor for the NHS by supplying business or other patient level services on behalf of the NHS. This Standard should be applied to all Patient Identifiable Data and records regardless of their retention form, i.e. hard copy or electronic.
- This Standard is applicable to all NHS staff who must ensure that any Patient Identifiable Data, be it clinical or administrative, has an NHS Number attributed to it. This Standard will also apply to any other body and its employees who provide patient based services on behalf of, or as subcontractors to, the NHS.
- The use of the NHS Number will be mandated in all (appropriate) processes, procedures and systems, across Secondary Care.
- In accordance with the National Patient Safety Agency's (NSPA) Standard for Safer Patient Identification the NHS Number should be included on any wristband provided to a patient on

admission into any NHS provider unit. This Standard requires the inclusion of the NHS Number as a key element for patient identification.

- It is recognised that there is an educational element to this requirement. The introduction of the NHS Number will require a comprehensive communication campaign for all NHS organisations to highlight the value of this data element to their patients and to administrative and clinical staff.

Use by Suppliers and Infrastructure Support

- The use of the NHS Number will be mandated in all (appropriate) processes, procedures and systems as defined in the NHS Care Records Service (NCRS), NASP (National Application Service Provider) and Local Service Provider (LSP) Contract Schedules, and for all other purposes where Patient Identifiable Data is stored, communicated or processed.
- The use of the NHS Number will be mandated in all (appropriate) processes, procedures and systems as defined within the Existing Systems Programme (ESP), part of NHS CFH, and for all other purposes where Patient Identifiable Data is stored, communicated or processed.
- In support of mandating the NHS Number in NHS business and clinical systems, the Common User Interface (CUI) Programme within NHS Connecting for Health has submitted a display standard to the Information Standards Board for Health and Social Care (ISB HaSC). At the time of submission of this Standard, the CUI Display Standard has been approved at the requirement stage.
- It is recognised that there is an educational element to this requirement. The introduction of the NHS Number will require a comprehensive communication campaign. Supplier organisations should ensure that all users are aware of the NHS Number and the links to patient safety, where possible these messages should be included in training manuals.

Note: Secondary Care services also include Tertiary Care services delivered from a Secondary Care setting (e.g. hospital).

Out of Scope

The following care settings, of which some are generally considered Secondary Care, are out of scope for this Standard and will be covered in future Standards:

- Ambulance service
- Mental Health
- Prison Health
- Community Care
- Community Pharmacy
- Ministry of Defence (Service Personnel and Service Dependants)

Note: Mental Health patients, Prisoners and Service Personnel/Service Dependants are in scope when using Secondary Care Services.

NHS practice is to not issue identifiers to foetuses in utero; therefore foetuses in utero are out of scope for this Standard.

Complete Adoption of the NHS Number

A key factor in achieving the objectives of this Standard will be to have verified NHS Numbers on patient records.

Evidence from the Exemplar Sites (see section 4.2) indicates the levels that can be achieved today.

The arrival of new patients means that the number of records with verified NHS Numbers will vary daily and even within a single day. To allow providers to monitor performance of such a dynamic environment, it is suggested that they consider using statistical process control methods to monitor performance.

It is the responsibility of an organisation to ensure that records have a verified NHS Number as soon as possible in order to minimise clinical risk to the patient. This is supported by research undertaken by the NPSA and described in the NHS Number Safer Practice Notice {R7}.

Dependencies and constraints

For outpatients, the availability of the NHS Number will be dependent on the GP referral - given that all referrals should have an NHS Number there should be no issue. However, evidence from North Bristol Trust highlights that 22% of non Choose and Book (CAB) GP referrals (approximately 40% of all referrals) arrive without the NHS Number.

For routine admissions that are not through a referral, there should be sufficient time to include the information in batch tracing processes to enable the NHS Number to be available before the patient is admitted.

For A&E there is a significant issue as the patient is unlikely to know their NHS Number (although there are cases, at North Bristol for example, where parents present their child to A&E with the child's health book (red book), which does include the NHS Number). Unless the patient is already known to the Trust/provider there is not likely to be an NHS Number available. Initial metrics from North Bristol Trust are that 82% of A&E patients are already known to the Trust and have records in the PAS. In situations where the NHS Number is not supplied, or the patient cannot be identified, there is often no option but to use a local identifier. The speed and availability of tracing services within the organisation will therefore either assist or constrain the ability to find the NHS Number early on in the patient pathway. (Information regarding the allocation of NHS Numbers is given in section 3.2.6.)

Please also see Appendix SC-A4 for details of A&E metrics.

Management information system (MIS) and reporting functionality

At this time there is no evidence that secondary care providers are able to gain a snapshot view of the status of NHS Numbers on patient records held on PAS. It is therefore proposed that this standard raises the need for this reporting functionality as a priority for achieving complete adoption. Without the ability to view in real time (or on a daily basis) the level of NHS Numbers on records, providers will be unable to evaluate the success of local change initiatives.

Note: This Standard is not mandating that the NHS Number be used as the primary database key; nor that it replaces any local identifiers.

There are deemed to be clinical safety benefits to be gained from the NHS Number becoming the primary key/identifier. However the ability to allocate an NHS Number at point of care remains a barrier to this development. The functionality to allocate an NHS Number is available within the current release

of the PDS but there have been issues with implementation – for example, a large number of duplicates were created at The Royal Free Hospital (Hampstead) when they started to use this functionality. The creation of duplicates has safety implications and therefore could outweigh any benefit of having the NHS Number as the primary key. Further information for Trusts relating to the allocation of NHS Numbers in secondary care settings has been included in this Standard (see section 3.2.6) and in the supporting Guidance.

(See also www.connectingforhealth.nhs.uk/systemsandservices/demographics)

From engagement during the development of the Standard there was a strong response from NHS stakeholders working in information departments that implementation of the NHS Number as the primary key is not easily achievable and would require major investment to re-index all existing record systems.

In response to this information, the decision of the NHS Number Programme Board is to focus on mandating the NHS Number as an essential data element to be included on all patient records, highlighting and identifying standard process and practice to be adopted where this is not possible.

The NHS Number Programme has been commissioned to investigate the feasibility of further development into the use of the NHS Number as the sole identifier used in Secondary Care, which, if proven, would be the subject of a future information standard.

2.2. Response to Board Output

For Full standard the following actions are required of the developer:

1. Provide evidence of the current position regarding NHS number interoperability within key systems including, but not restricted to:
 - a. Discharge summaries
 - b. CDS returns
 - c. Inter-provider transfers
 - d. Pathology requests/reports
 - e. PACS/RIS

Response: *This information has been provided in section 4.2*

2. Where there is evidence of poor NHS number interoperability attainment, provide a plan for how Trusts can improve performance and realistic timelines for conformance.

Response: *This information has been provided in section 4.2.*

3. Identify any significant risks to patient safety relating to the NHS number for each of the identified key systems/solutions and where patient safety may be compromised provide a plan for how Trusts can mitigate these risks.

Response: *Section 4.6 has been updated to show risks and mitigations.*

4. Consider the data items necessary for safe transfer of information relating to an individual both between systems and between humans and systems and where it is considered necessary to use more than the verified NHS Number develop and submit the data set as an information standard to ISB HaSC. [It is realised this is outside the scope of this project but strategically this direction could be set by the sponsor]

Response: *System considerations have been included in section 3.1.2; human considerations have been included in section 4.6.*

5. Ensure that there are sufficient performance and conformance criteria to enable Trusts to monitor their progress to full implementation of the NHS Number and support an external agency in performing the task of measuring conformance to the standard

Response: *Section 4.8 has been updated to include considerations for Trust with regard to monitoring progress.*

2.3. Changes to Draft submission

In addition to the changes above (section 2.2) the following changes have been made:

- All requirements have been re-indexed with a prefix of “NN-SC-”.
- NN-SC-SR-06 updated – caveat added to this requirement to allow for issues with receiving systems.
- NN-SC-SR-08 updated – this requirement has been updated to include the need to use other demographic information along with the NHS Number.
- NN-SC-BR-07 updated – this requirement has been updated to include the need to use other demographic information along with the NHS Number.
- Section 4.2 updated – further examples of conformance from Exemplars have been added, along with a summary table, and responses from the Review Pack are also included.
- Storyboards (previously Appendix 6) have been removed as these are included in the Guidance.
- Appendix 6 added – this appendix supports the updated section 4.2 and shows the conformance requirements that were sent out in the Review Pack.
- Section 4.3 updated – a diagram showing the conformance timelines has been added.
- Implementation Planning removed as external appendix as this is now included in the Guidance.
- Communications Plan appendix renamed from S2 to C1.
- All external appendices prefixed with “SC-”.

3. Full Stage

3.1. Implementation Architecture

3.1.1. NPfIT Systems and Services

The NHS Number is a key, and often sole, patient identifier used throughout NPfIT systems and services. The diagrams in Appendix 4 show:

- Departmental System Architecture Options for PDS Connectivity
- Spine Services and Secondary Care Information Flows

All information flows in the diagrams include the NHS Number; the NHS Number is a key component of the NPfIT technical architecture.

(See also Appendix 2 which contains a letter of endorsement from the NHS CFH Technology Office.)

3.1.2. Local Systems

Technical architecture diagrams for local organisations are available in the following appendices:

- Appendix SC-E1: Exemplar Site Report – North Bristol Trust
- Appendix SC-E4: Exemplar Site Report – Nottingham University Hospital Trust

3.1.3. Interoperability

As per system requirement NN-SC-SR-06 (see section 3.2.1) all electronic messages must include the NHS Number. As part of the development of any messaging solution there should be consideration of whether it is safe to rely on the NHS Number as the sole identifier within the message or whether other identifiers or patient demographic information need to be included.

For some solutions (e.g. Spine messaging) using only the NHS Number as the identifier is safe as the NHS Number can be relied on; as part of Spine compliance the NHS Number will always be verified before the message is sent.

It is important that only verified NHS Numbers are included in electronic messages (see requirement NN-SC-SR-06). This is of particular importance when using only the NHS Number without any other demographic information.

3.2. Standard Specification

The specification for this standard is described below in the form of conformance requirements, i.e. what needs to be done in order to conform to the standard.

These requirements are either mandated requirements (i.e. “**must**”) or recommended requirements (i.e. “**should**”).

- **must**: This word means that the definition is an absolute requirement of the specification.
- **should**: This word means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications **must** be understood and carefully weighed before choosing a different course of action.

Note: Some requirements that are a **must** may also have a caveat, exception or other clause indicating specific cases where the requirement may not be applicable.

These conformance requirements apply, as appropriate, to:

- All staff in NHS organisations involved in patient care in Secondary Care
- All staff contracted to the NHS involved in patient care in Secondary Care
- All staff in organisations contracted to the NHS involved in patient care in Secondary Care
- All staff working in, or contracted to, organisations involved in the delivery of systems, services or infrastructure support for Secondary Care
- All “Applicable Systems” (see sections 3.2.1 and 4.8)

Please note: “involved in patient care” refers to those directly or indirectly providing patient care and those providing administrative, clerical, strategic or managerial support directly or indirectly related to patient care.

See section 2.1 for full details of the scope of this Standard.

3.2.1. IM&T Systems Conformance Requirements

The following conformance requirements relate to “Applicable Systems”. The determination of an Applicable System will be the subject of a local clinical risk assessment, see section 4.8 for details.

System suppliers* must ensure that all Applicable Systems are upgraded to conform to the IM&T Systems Conformance Requirements **within twelve months** of the publication of this Standard.

NHS provider organisations must not install any Applicable Systems that do not conform to the IM&T Systems Conformance Requirements **after twelve months** from the publication of this Standard.

*for systems that are developed in-house the NHS provider organisation is considered to be the system supplier and must therefore conform to this Standard accordingly.

NN-SC-SR-01	Applicable Systems must be capable of storing the NHS Number on patient records.
	<i>Notes: This is the key requirement for conformance with the Standard.</i>
NN-SC-SR-02	Applicable Systems must record the verification status of each recorded NHS Number.
	<i>Notes: The verification status shows whether the NHS Number has been traced and verified (see glossary of terms) on NSTS* or PDS, in accordance with the relevant compliance documentation.</i>
	<i>This requirement is included in order to improve data quality and allows conformance with NN-SC-SR-06 and NN-SC-SR-08.</i>
	<i>For details of the PDS verification see section 3.2.2.</i>
	<i>*NSTS is de-commissioned from March 2009 but it is expected that systems will retain the NSTS tracing status until the record is re-traced on the PDS.</i>
NN-SC-SR-03	Applicable Systems must allow users to find a patient record using the NHS Number as the only search criterion.
	<i>Notes: This requirement is included to allow conformance with NN-SC-BR-01 and NN-SC-BR-02.</i>

	<p><i>It is important to note that this refers to patient records stored in the local system. For records stored on the PDS or other Spine systems/services please refer to the relevant compliance documentation. See also section 3.2.2.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
<p>NN-SC-SR-04</p>	<p>Applicable Systems must allow users to find a patient record using the NHS Number as part of the search criteria in conjunction with other demographic information.</p> <p><i>Notes: This requirement is included to allow conformance with NN-SC-BR-01 and NN-SC-BR-02.</i></p> <p><i>It is important to note that this refers to patient records stored in the local system. For records stored on the PDS or other Spine systems/services please refer to the relevant compliance documentation. See also section 3.2.2.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
<p>NN-SC-SR-05</p>	<p>Applicable Systems must allow users to find a patient record without using the NHS Number as part of the search criteria.</p> <p><i>Notes: Notes: It is important that systems enable users to find a patient's record when the NHS Number is not known, this requirement also allows conformance with NN-SC-BR-01.</i></p> <p><i>It is important to note that this refers to patient records stored in the local system. For records stored on the PDS or other Spine systems/services please refer to the relevant compliance documentation. See also section 3.2.2.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
<p>NN-SC-SR-06</p>	<p>Applicable Systems must include the NHS Number in any Patient Identifiable Data sent electronically, with the following exceptions:</p> <ul style="list-style-type: none"> • the NHS Number is not available at time of transmission • it is not possible for the receiving system to be developed/configured to accept the message • the use of the NHS Number is not in conflict with other requirements or policies*. <p>Only verified NHS Numbers should be sent electronically.</p> <p><i>Notes: This requirement is included to ensure that information shared electronically within and between organisations includes the NHS Number so that it can be used by the receiving systems as a unique patient identifier. But, this should only refer to verified NHS Numbers in order to ensure that any NHS Numbers shared are accurate and therefore can be used safely and with confidence.</i></p> <p><i>It is understood that there may be configurations of interfaces where the receiving system is not able to accept a message containing the NHS Number or where the messaging cannot be updated due to constraints on the receiving system. System</i></p>

	<p><i>developers should make efforts to resolve these issues.</i></p> <p><i>This requirement therefore enables conformance with NN-SC-BR-01 – sharing of the NHS Number allows it to be used by the recipient.</i></p> <p><i>Local risk assessments should be used to determine when the use of non-verified NHS Numbers is permitted.</i></p> <p><i>See also section 3.2.2 regarding the PDS and verification processes.</i> <i>See also section 3.1.3 regarding interoperability.</i></p> <p><i>*Other requirements or policies may relate to, for example, sexual health, where the NHS Number is not included in order to secure patients' identity.</i></p>
NN-SC-SR-07	<p>Applicable Systems must display the NHS Number on any screen showing Patient Identifiable Data (if available). The verification status of the NHS Number should also be displayed.</p> <p><i>Notes: This requirement enables conformance with NN-SC-BR-01 – if the NHS Number is visible to the user it can be shared more easily, which allows it to be used by the recipient. The NHS Number needs to be visible on any screen when the user is viewing a patient's record, not just on a particular demographics screen.</i></p> <p><i>See also section 3.2.2 regarding the PDS and verification processes.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2} and the Patient Banner for clinical user interfaces {R3}.</i></p>
NN-SC-SR-08	<p>Applicable Systems must include the NHS Number on all hard-copy outputs containing Patient Identifiable Data (if available at time of output). Additional patient demographic information must also be included. Only verified NHS Number should be output.</p> <p><i>Notes: Hard-copy outputs include, but are not limited to, wristbands, notes, labels, reports, forms, letters and correspondence. But, this should only refer to verified NHS Numbers in order to ensure that any NHS Numbers shared are accurate and therefore can be used safely and with confidence.</i></p> <p><i>Additional patient demographic information should include at least the surname and date of birth, but may also include first name, gender, addresses, post code, telephone number.</i></p> <p><i>This requirement enables conformance with NN-SC-BR-01 and NN-SC-BR-02 – if the NHS Number is shared it can be used by the recipient. This enables conformance with NN-SC-BR-03 – other demographic information must be used to confirm that the correct record has been retrieved. This enables conformance with NN-SC-CR-03 – if the NHS Number is given to patients they can use it when contacting the service.</i></p> <p><i>See also section 3.2.2 regarding the PDS and verification processes.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
NN-SC-SR-09	<p>Applicable Systems must only display and print the NHS Number in 3 3 4 format (e.g. 123 456 7890).</p>

	<p><i>Notes: This requirement allows safer use of the NHS Number, see section 4.6.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
NN-SC-SR-10	<p>Applicable Systems must allow the NHS Number to be input, into the appropriate data input field on the screen, as 10 digits with or without spaces.</p> <p><i>Notes: This requirement allows the NHS Number to be cut-and-pasted between screens (where necessary) and to be input as it is read (i.e. in 3 3 4 format), therefore reducing transcription errors.</i></p> <p><i>The NHS CUI Programme Team have developed guidance for the input and display of the NHS Number {R2}.</i></p>
NN-SC-SR-11	<p>Applicable Systems must validate (both format and check-digit) the NHS Number when input.</p> <p><i>Notes: This requirement improves data quality by allowing the system to report to the user that an NHS Number is not valid. This is important for manually recording an NHS Number against an electronic patient record, thereby ensuring that an invalid NHS Number is not stored on an electronic patient record. Also, when an NHS Number is entered as a search criterion, it is important to notify the user when the NHS Number is not valid rather than that the record cannot be found. This will allow the user to check the NHS Number rather than assume the patient has no record, which in turn could lead to duplicate records being created.</i></p> <p><i>Validation (see glossary of terms) will be in accordance with the NHS Number format, including check-digit, defined in the NHS Data Dictionary {R4}.</i></p>
NN-SC-SR-12	<p>Applicable Systems should be capable of reporting all patient records which do not have a verified NHS Number recorded.</p> <p><i>Notes: This requirement enables NN-SC-BR-05; data quality processes need to be supported by IM&T functionality.</i></p>
NN-SC-SR-13	<p>Applicable Systems should be capable of reporting where the same NHS Number (verified or not) is recorded on more than one patient record.</p> <p><i>Notes: This requirement enables NN-SC-BR-05; data quality processes need to be supported by IM&T functionality.</i></p>
NN-SC-SR-14	<p>Applicable Systems should also include a bar coded or RFID equivalent of the NHS Number on all hard-copy outputs containing Patient Identifiable Data.</p> <p><i>Notes: This requirement improves the safe use of the NHS Number (see section 4.6).</i></p> <p><i>For hard-copy outputs see NN-SC-SR-08.</i></p> <p><i>There is, at the time of publication, an ISB Draft Standard – Bar Codes Standard for the purposes of Automatic Identification and Data Capture (AIDC); developed by NHS CFH in conjunction with GS1 UK.</i></p> <p>www.isb.nhs.uk/docs/aidc-bar-coding/?searchterm=AIDC</p>

3.2.2. PDS Compliance

Conformance with this Standard is not dependent on having local systems that are PDS compliant.

PDS compliant systems will allow better tracing and retrieval of NHS Numbers in secondary care settings, but, for the most part, conformance with the Standard will not require systems to enable front-desk users PDS trace and retrieve capabilities; therefore use of the NHS Number in this case would be limited to those currently on local patient records. Use of the PDS is recommended, but it is important to point out that organisations can effect change before systems are replaced with PDS compliant versions (where appropriate).

If the local system offers the user the capability of tracing and retrieving PDS records then the following are applicable. Please note – **the list below is a summary re-iteration of relevant PDS requirements.**

- In the situation where an electronic patient record cannot be found on the local system the PDS must be used to trace or retrieve a record
- When successfully traced, this PDS record must be used as the basis for any local record, including the NHS Number
- Where a record cannot successfully be traced on the PDS, according to business process, the PDS must be used to create a new record for the patient by allocating them a new NHS Number (see section 3.2.6)
- Where an electronic patient record can be located on a local system, the identifier on that record must be used to retrieve the companion record from the PDS
 - Where a local record is to be used for this type of activity, it is recommended that it comprise a minimum set of demographic data to make data retrieval and identification possible
 - The candidate local record should contain NHS Number, surname, forename, gender and date of birth
 - The local system should store the PDS Serial Change Number to indicate it has previously been traced, verified and/or synchronised with the PDS
- Once returned from the PDS, local systems must cross-check that the returned NHS Number is associated with the same patient demographics as the record resident on the local system
 - The following algorithms are mandated in PDS Compliance for this cross-check activity and will confirm a match of records:
 - NHS Number and date of birth
 - NHS Number and first character of forename, first three characters of surname and two out of three components of the date of birth
- Prior to retrieving or updating information on other NHS CRS systems, a locally stored patient NHS Number must be confirmed on the PDS, so that any invalidation or superseding of the number can be detected

Full PDS requirements for local systems can be found in the PDS compliance documentation {R6}.

3.2.3. Human Behaviour and Business Process Conformance Requirements

NHS provider organisations must conform to all Human Behaviour and Business Process Conformance Requirements **within twenty-four months** of the publication of this Standard.

If conformant Applicable Systems* are operational **within twelve months** of the publication of this Standard, NHS provider organisations are expected to conform to all Human Behaviour and Business Process Conformance Requirements **within a further twelve months** from when the system is upgraded/replaced.

If conformant Applicable Systems* are currently operational, NHS provider organisations are expected to conform to all Human Behaviour and Business Process Conformance Requirements **within twelve months** of the publication of this Standard.

*see section 3.2.1

<p>NN-SC-BR-01</p>	<p>The patient's NHS Number should be determined at the beginning of (or prior to) the episode of care, where possible and practical.</p> <p><i>Notes: This requirement is key to satisfying the customer need (see section 1.5), enabling the NHS Number to be used throughout the episode of care.</i></p> <p><i>It is understood that it is not always possible or practical to achieve this requirement. See section 3.2.5 for details on Exception Cases.</i></p> <p><i>This requirements aligns with PDS Compliance requirements, specifically PDSPCP-3, which states:</i></p> <ul style="list-style-type: none"> • <i>Local systems MUST synchronise any locally-held copy of a patient record with its counterpart on the PDS at [...] the commencement of an episode. This includes:</i> <ul style="list-style-type: none"> ○ <i>Registering or reception at a GP surgery</i> ○ <i>Reception at an outpatient clinic</i> ○ <i>Beginning of any episode of unscheduled care where patient identity is known [...]</i> <p><i>Please note, PDS Compliance is not a specific requirement for conformance with this Standard, see section 3.2.2</i></p>
<p>NN-SC-BR-02</p>	<p>When supplied, the NHS Number should be used to find a local electronic patient record.</p> <p><i>Notes: This requirement enables the NHS Number to be effective as the unique patient identifier. Where an NHS Number is available (e.g. on a referral) it should be used to find/retrieve the patient record in the local system (for PDS records see section 3.2.2). Using the NHS Number to retrieve an electronic patient record is quicker than using other demographic information (such as name and date of birth) as the NHS Number is quicker to enter than a name and date of birth (for example) and will typically match only one record. See also NN-SC-BR-03.</i></p>
<p>NN-SC-BR-03</p>	<p>When the NHS Number is used to retrieve an electronic record other demographic information supplied must be used to confirm the patient's identity and that the record retrieved belongs to that patient.</p> <p><i>Notes: This requirement enables the NHS Number to be used to retrieve a patient record safely (see NN-SC-BR-02) by verifying the demographic information returned.</i></p>

	<i>Additional information supplied, either verbally or on written/printed outputs must be checked against the demographic information presented by the system in order to confirm that the correct record for the patient has been retrieved.</i>
NN-SC-BR-04	<p>Where the source of the record/data was not the PDS, batch or manual tracing of missing or non-verified NHS Numbers must be done as soon as possible after:</p> <ul style="list-style-type: none"> • the creation of the local record ; • a change to, or the addition of, the NHS Number on the local record; • or a change to traceable demographic information on the local record.
	<p><i>Notes: This requirement is key to satisfying the customer need (see section 1.5), enabling the NHS Number to be used throughout the episode of care.</i></p> <p><i>See also section 3.2.2</i></p>
NN-SC-BR-05	<p>Data quality processes must be in place to resolve electronic patient records where the same NHS Number (verified or not) is recorded on more than one record.</p>
	<p><i>Notes: This requirement enables data quality improvement which will improve the safety of using the NHS Numbers. This also enables an increase in verified NHS Numbers on patient records which allows increased sharing in accordance with NN-SC-SR-06 and NN-SC-SR-08.</i></p> <p><i>See also NN-SC-SR-12 and NN-SC-SR-13 in section 3.2.1</i></p>
NN-SC-BR-06	<p>The parent or guardian must be given the NHS Number of and newborn child following allocation via the statutory notification of birth (through NHS Number for Babies Service (NN4B)) or the PDS.</p>
	<p><i>Notes: This requirement enables conformance with NN-SC-BR-01 – if the NHS Number is shared it allows it to be used by the recipient. This also relates to NN-SC-CR-02 and NN-SC-CR-03.</i></p> <p><i>For more details refer to NN4B and PDS requirement/compliance documents and guidance.</i></p> <p>The FP58 form (used to register a child at a doctor's surgery in the UK) is withdrawn from 1st April 2009. As a result of this:</p> <ul style="list-style-type: none"> • <i>Maternity and child health units should issue the mother with her child's NHS Number using either the births leaflet (“From birth for life”), the “red book” or a local form.</i> • <i>GP Practices should use the GMS1 for registering the baby, making sure to include the NHS Number provided by the mother. If the NHS Number is not provided, then the demographics details given at the time of birth should be included as a previous name when tracing on the PDS.</i>
NN-SC-BR-07	<p>The patient’s NHS Number should always be included as part of all communications, correspondence and filing systems involving Patient Identifiable Data. Additional patient demographic information must also be included with the NHS Number. Only verified NHS Number should be output.</p>
	<p><i>Notes: NN-SC-SR-06 and NN-SC-SR-08 will ensure that hard-copy outputs and electronic messages include the NHS Number, but this should also be extended to all hand-written communications and verbal communications with other care providers</i></p>

	<p>(e.g. telephone referrals, requests for transfer, reports to GPs, etc.). Case notes and other filed paper documents must include the NHS Number – for example through the use of a printed label.</p> <p>Additional patient demographic information should include at least the surname and date of birth, but may also include first name, gender, addresses, post code, telephone number.</p> <p>The verification status of the NHS Number should be available on the system (see NN-SC-SR-07).</p>
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3.2.4. Awareness, Communications and Training Conformance Requirements

NHS provider organisations must conform to all Awareness, Communications and Training Conformance Requirements **within twelve months** of the publication of this Standard.

NN-SC-CR-01	NHS provider organisations must promote the importance and use of the NHS Number to all staff.
	<i>Notes: This requirement supports NN-SC-BR-01, NN-SC-BR-02 and NN-SC-BR-04.</i>
NN-SC-CR-02	NHS provider organisations must promote the importance of the NHS Number to all patients.
	<i>Notes: This requirement supports NN-SC-BR-01, NN-SC-BR-02 and NN-SC-CR-03; supporting the patient’s ability to supply their NHS Number when presenting to or contacting the service.</i>
NN-SC-CR-03	NHS provider organisations must have processes in place to ensure that patients know their NHS Numbers and are able to supply them when presenting to or contacting any NHS provider organisation.
	<i>Notes: This requirement supports NN-SC-BR-01, NN-SC-BR-02 and NN-SC-CR-02; supporting the patient’s ability to supply their NHS Number when presenting to or contacting the service.</i>
	<i>It is not expected that patients will memorise their NHS Numbers, but through increased use of the NHS Number in communications and on correspondence the ability to supply the NHS Number as needed will increase.</i>
NN-SC-CR-04	NHS provider organisations must ensure all staff are trained in the correct use of IM&T systems, human behaviours and business processes required to support this Standard.
	<i>Notes: This requirement supports the implementation of this Standard.</i>

3.2.5. Exception Cases

This section details the areas of conformance that have been identified as Exception Cases; areas that do not fit the typical pattern of processes or working practices of patients using Secondary Care services in England.

Unable/inappropriate to identify patient at start of episode:

- A&E: immediate treatment required
- A&E: major incident
- Deceased
- Unconscious or confused
- Inability to effectively communicate
- Reluctance to give demographic information

Anonymous, sensitive, shielded identity:

- Adoption
- Prisoner
- Service Personnel and Service Dependants (MoD)
- GU/Sexual health/HIV patients
- Mental health
- Gender reassignment
- Identity protection
- Pseudonymised records (for example in GU medicine within local organisation)

Cross-border patients:

- Wales
- Isle of Man
- Scotland
- Northern Ireland
- Republic of Ireland
- Other EU
- Other non-EU

These Exception Cases potentially mean that determining the NHS Number for the patient will be difficult, delayed or impossible. It is important to note that the handling of Exception Cases is subject to change. Guidance and advice regarding the processes required to handle these exceptions is given in the Guidance document that supports this Standard. This Guidance is subject to a shorter review cycle than the Standard which allows it to align more closely with the current work being undertaken by NPfIT programmes (see section 4.7).

3.2.6. Allocation of NHS Numbers

The NHS Number for Babies (NN4B) service enables the allocation of NHS Numbers to babies born in secondary care.

The PDS enables the allocation of NHS Numbers to patients in secondary care settings. However, this process is not appropriate in all situations and all care settings. PDS Compliance documents {R6} give guidance on this subject and it is typically left to local organisations to undertake risk assessment: in particular, allocation of NHS Numbers in emergency care settings is discouraged.

Further details are given in the Guidance that supports the Standard.

See also www.connectingforhealth.nhs.uk/systemsandservices/demographics.

3.2.7. Existing/Planned Standards

The NHS Number is defined in the NHS Data Dictionary {R4} and the UK Government Data Standards Catalogue {R5}.

The NHS Number is the key identifier used in the PDS and as such is included in the PDS Compliance documents {R6}.

The majority of Commissioning Data Sets (CDS) include the NHS Number, although in a number of CDSs it is currently optional. In the future all new CDSs will require the NHS Number. The table below shows the current set of CDSs and other datasets developed and maintained by the Information Centre for Health and Social Care.

Type	Name	NHS Number Status
A&E	ACCIDENT AND EMERGENCY CDS	Optional
OP	OUTPATIENT CDS	Mandatory
WL	FUTURE OUTPATIENT CDS	Mandatory
	EAL - END OF PERIOD CENSUS STANDARD CDS	Mandatory
APC	APC - FINISHED BIRTH EPISODE CDS	Optional
	APC - FINISHED GENERAL EPISODE CDS	Mandatory
	APC - FINISHED DELIVERY EPISODE CDS	Mandatory
	APC - DETAINED and/or LONG TERM PSYCHAITRIC CENSUS CDS	Mandatory
Datasets in Development	Long Term Neurological Conditions Dataset	Mandatory
	Child and Adolescent Mental Health Services (CAMHS)	Mandatory
	Child Health	Mandatory
	Renal	Mandatory
	Maternity	Mandatory
Completed	Cancer	Mandatory
	Coronary Heart Disease	Mandatory
	Diabetes	Mandatory
	Older people	Mandatory
Datasets in Maintenance	Mental Health Minimum Dataset (MHMDS)	Optional
	National Workforce Data Definitions	Not a patient level dataset

The ISB will ensure that all future DSCNs and Information Standards developed will, where relevant, be informed by the NHS Number Standard.

The NHS Number is referenced in the following Safer Practice Notices:

NHS Number Standard for Secondary Care (England)
Full Operational Information Standard

-
- NHS Number {R7}
 - Standardising wristbands improves patient safety {R8}
 - Right patient, right blood: advice for safer blood transfusion (Electronic Clinical Transfusion Management System requirements) {R9}

This Standard is complemented by the NHS Number Standard for General Practice (England) {R10}.

Further Standards will be developed for other care settings as described in the Fundamental Standard.

3.2.8. Information sharing with out-of-scope care settings

There will be an interim period between the publication of this Standard and the future NHS Number Standards that will cover other care settings. During this period some Patient Identifiable Data coming into a Secondary Care setting might not include the NHS Number. In such cases patient records should be retrieved using the demographic information supplied. Any Patient Identifiable Data being sent to out-of-scope care settings must still conform to the requirements detailed in this Standard.

3.3. Governance

National Programme Governance

The NHS Number Programme will be directed by a Board led by the NHS Medical Director and supported by senior clinical staff from different sectors of healthcare, in addition to experts in patient safety and data quality, and representatives from NHS provider organisations.

Local Governance

Any programme of work associated with the implementation of the Standard will rely on the existence of a governance framework for data quality and resolution of data quality issues in the NHS; consultation with the National Back Office is currently underway to define and agree this. This framework should also ensure that there is a cascade of demographic changes between NHS CRS applications and legacy records systems.

More details on implementation can be found in section 4.3.

Information Governance

The Information Governance Statement of Compliance (IGSoC) is the agreement between NHS Connecting for Health (NHS CFH) and all users of NHS CFH services, directly or indirectly; it is applicable to any organisation that receives services from NHS CFH, both public and private sector organisations.

IGSoC mandates that DH, NHS and NHS CFH policies and good practice guides are implemented (v6 clauses 3.3 and 3.4).

IGSoC will be updated in version 7 to make explicit reference to the NHS Number Standard.

(The IGSoC can be found here

www.connectingforhealth.nhs.uk/systemsandservices/infogov/igsoc/)

Note: DH and other governance policies/guidance must also be considered as part of any Information Governance risk assessment, for example, with regard to research data.

See section 4.8 for details of IG conformance testing/monitoring.

3.4. Consultation and Support

The key drivers for the NHS Number Programme are supporting and enabling NHS providers to develop safer patient identification practice. The NHS Number Standard for Secondary Care is an essential component of this work; therefore the level of clinical support for this standard is provided as one the most important endorsements of support.

A letter from Sir Bruce Keogh NHS Medical Director is included in Appendix 1 as the sponsor statement; this is further supported by a letter from the Joint Medical Consultative Council who have called for “a greater priority to be given to the NHS Number”. A copy of this letter is provided in Appendix 3.

The inclusion of the complete adoption of the NHS Number as part of the NHS Operating Framework 08/09 highlights that this has been agreed by the NHS Management Board, including Chief Executive representation from all SHAs. The NHS Operating Framework 09/10 also contains references to ensure the NHS Number is used to support data sharing and ensuring safer care.

The NHS Number Programme Board includes representatives from the following areas of the NHS:

- NHS Medical Director (DH)
- General Practice (RCGP)
- Hospital Doctors
- Radiologists
- Public Engagement
- Chief Information Officers (SHA)
- Head of information (Trust)
- NHS CFH Chief Clinical Officer
- NHS CFH Tech Office
- NHS CFH Business Requirements
- ISB HaSC
- National Patient Safety Agency

Board endorsement is evidenced in the minutes of the 3rd July 2008 NHS Number Programme Board: *“The majority of clinicians ... felt that it would provide a constructive link to patient safety”*

Further statements of support can be found quoted in the Guidance.

A large amount of consultation was undertaken with the Exemplar Community: a group of Acute Trusts, and Primary Care Trusts providing secondary care services, who have shared knowledge and experience with the NHS Number Programme (see Appendix SC-A1).

Further details of analysis and consultation can be found in the Appendices (listed at the start of the document).

Supplier Consultation

To help standard developers gain a greater understanding of functionality that is available in the healthcare IT system market place, ESPs and LSPs have been consulted and given the chance to review the conformance requirements detailed in section 3.2 (see also section 4.2).

In order to ensure that this interaction is managed in line with corporate policy, this work will be conducted in partnership with the supplier liaisons within NHS CFH.

Details of ESP meetings can be found in Appendix SC-A3.

4. Fitness for Purpose and Implementation Feasibility

4.1. Summary of Approach to Implementation Feasibility Testing

In order to develop the Standard, a wide range of stakeholders have been consulted (see section 3.4). The majority of the analysis and consultation was undertaken with the Exemplar Community: a group of Acute Trusts, and Primary Care Trusts providing secondary care services, who have shared knowledge and experience with the NHS Number Programme (see Appendix SC-A1). Suppliers were also involved in testing the feasibility of the conformance requirements.

Following the development of the Draft Standard, a review pack was sent to a range of stakeholders, including Exemplar Sites, suppliers, SHAs (NHS Number Leads, for further distribution), IG Forums (for further distribution) and NPfIT programmes. The review pack included this Standard and a Review Questionnaire, which allowed the reviewer to indicate the feasibility of the conformance requirements (from section 3.2) in terms of whether they currently conform, would be able to conform (and in what time period) or would never be able to conform. Results of these reviews are presented below.

4.2. Feasibility Testing

NHS Organisations

Testing of the effectiveness and feasibility of the requirements has been done through the work undertaken with Exemplar Sites and other stakeholders.

The Standard (particularly the conformance requirements in section 3.2) has been developed through wide consultation with Exemplar Sites, IG Forums, NPfIT Programmes and other stakeholders (see section 3.4).

Details are provided in this document and the following appendices:

- Appendix SC-A1 – Analysis and Consultation – Exemplar Community (which further references the Example Site Reports)
- Appendix SC-A2 – Analysis and Consultation – NPfIT Programmes

Metrics and Current Situation

A summary of the metrics gathered for key systems and operations is shown below:

System/Process	Metrics
PAS/MPI records (Implementability)	Exemplars report 76.81% - 98%, with up to 99.4% on records with patient activity in the previous 12 months.
Booked admissions (paper or telephone referrals) (Interoperability)	Exemplars report 35-98% of referrals include the NHS Number
Choose and Book referrals (Interoperability)	100% of referrals include the NHS Number; almost 60% of all outpatient referrals are made through Choose and Book.
Discharge summaries (Interoperability)	All (South Staffs). 95% (EDL, Royal Berks). 25% (Calderdale)
A&E encounters (Implementability)	Exemplars report 82-95% of A&E attendees already have a local record (percentage of attendees with NHS Number on arrival will

	<p>depend on coverage on local records)</p> <p>Exemplar reported 11-27% records created from A&E were duplicate (only one Exemplar; two spot checks)</p>
Patient wristbands (Implementability)	<p>Central Alerting System reports compliance with the SPN “Standardising wristbands improves patient safety” for 392 responses as follows:</p> <ul style="list-style-type: none"> • Action completed: 106 (27%) • Action not required: 91 (23%) • Action on-going: 158 (40%)
HES (from CDS returns) (Implementability)	<p>A&E: 85.3% coverage Admitted Patients: 96.6% coverage Outpatients: 97.5% coverage</p> <p>Trusts reporting over 95% of records with an NHS Number:</p> <ul style="list-style-type: none"> • Admitted patients: 82% • Outpatients: 92% • A&E: 32%
Inter-provider transfers (Interoperability)	<p>The monitoring mechanism for this has begun too recently to inform this Standard.</p>
Pathology messaging (Interoperability)	<p>Approximately 8 million messages go across DTS; not all are PMIP; estimated that most PMIP messages include the NHS Number, even though it is optional.</p>
PACS/RIS (Implementability/Interoperability)	<p>PACS/RIS coverage is dependent on the system in use, with the RIS being fed from the PAS or having no NHS Number at all. Therefore coverage within the system is either 0% or the same percentage as the PAS.</p>
Spine messaging (Interoperability)	<p>NHS Number is mandatory, therefore in 100% of Spine messages.</p>

For further details of metrics gathered during the consultation process and the current situation with regard to the NHS Number please refer to Appendix SC-A4.

Where metrics are low this will be improved through the implementation of the Standard. NHS Number coverage on local systems will improve through improved data quality and more frequent tracing, as well as improved use of, and sharing of, the NHS Number within and between organisations. Interoperability will improve as systems conform to the Standard and as more NHS CFH systems/services (particularly Choose and Book and the PDS) are used. Details of development plans for PACS and pathology messaging can be found in Appendix SC-A2.

Evidence of Current Conformance to Requirements from Exemplar Sites

It has been demonstrated that the NHS Number can be determined at the beginning of and prior to the episode of care (requirement NN-SC-BR-01):

- Sheffield Teaching Hospitals Trust (Appendix SC-E3) ran a demonstrator in the Emergency Admissions Unit asking the GP for the NHS Number
- In A&E at North Bristol Trust (Appendix SC-E1) staff realised that the NHS Number in the child's "red book" could be used to retrieve a patient record more quickly than searching by name
- All Choose and Book referrals include an NHS Number
- At North Bristol Trust referral clerks will call the referring GP practice if the NHS Number is missing from the referral
- South Staffordshire PCT (Appendix SC-E2) have a PDS compliant system and can trace patients on arrival.

The NHS Number can be used to retrieve an electronic record (requirement NN-SC-BR-02) on any system that has that functionality. This has been demonstrated on the PAS at Sheffield Teaching Hospitals and North Bristol Trust. Leeds Teaching Hospitals Trust (Appendix SC-E7) uses the NHS Number as the first choice when searching for a patient's record. At South Staffordshire PCT (Appendix SC-E2), if available, the NHS Number is always the first thing used to find a patient record. System requirements NN-SC-SR-03 and NN-SC-SR-04 will enable requirement NN-SC-BR-02.

As the NHS Number is rarely supplied without other demographic information, as it is on referrals, pathology and radiology requests for example, the demographic information can be checked against the electronic patient record when found using the NHS Number (requirement NN-SC-BR-03). At Leeds Teaching Hospitals Trust (Appendix SC-E7) staff are trained to search using the NHS Number and verify that the correct record has been found by checking surname, forename and date of birth.

Batch or manual tracing for the NHS Number can typically be done at any time (requirement NN-SC-BR-04). Sheffield Teaching Hospitals (Appendix SC-E3) batch trace every two days; North Bristol Trust (Appendix SC-E1) batch trace once a week and undertake ad hoc manual tracing every day; and Nottingham University Hospitals Trust (Appendix SC-E4) batch trace twice a week.

Data quality processes help reduce duplicate records and identify records when the same NHS Number is used on more than one record (requirement NN-SC-BR-05). The following organisations are among those that have demonstrated good practice with regard to data quality:

- Sheffield Teaching Hospitals Trust (Appendix SC-E3) - Duplication Prevention and Identification Processes included in appendix
- Nottingham University Hospitals Trust (Appendix SC-E4) – daily data quality processes run to identify duplicates and other issues
- Calderdale and Huddersfield Foundation Trust (Appendix SC-E5) – Data quality services provided by The Health Informatics Service

Statistics show that a number of hospitals have ordered the NN4B maternity leaflet, with nearly 70,000 being requested between January and September 2008. The leaflets are given to patients and include the NHS Number of the newborn (requirement NN-SC-BR-06).

The leaflet can be found here:

<http://www.connectingforhealth.nhs.uk/resources/systserv/nhsnrbleaflet.pdf>.

North Cumbria Foundation Trust (Appendix SC-E6) give the mother the baby's NHS Number in writing upon discharge.

It is possible to include the NHS Number in all communications (requirement NN-SC-BR-07). System requirement NN-SC-SR-06 will ensure that all electronic messages include the NHS Number; system requirement NN-SC-SR-08 will ensure that the NHS Number is on all hard-copies; system requirement NN-SC-SR-07 will ensure that the NHS Number is always visible when viewing a patient record. For newborns a “red book” is often used, or, for example in The Royal Free Hospital (Hampstead), the maternity discharge summary is given to the mother and this includes the NHS Number. Royal Berkshire Foundation Trust (Appendix SC-E8) include the NHS Number in all of their letters to GPs; North Cumbria Hospital Trust (Appendix SC-E6) uses a label containing the NHS Number on all documents and notes.

Staff training will provide the mechanism for organisations to promote the importance of the use of the NHS Number to all staff (requirement NN-SC-CR-01) and support for the correct use of IM&T systems and the other requirements within this Standard (NN-SC-CR-04). Some examples of organisations with good training processes/policies are South Staffordshire PCT (Appendix SC-E2), Nottingham University Hospitals Trust (Appendix SC-E4) and North Bristol Trust (Appendix SC-E1). Leeds Teaching Hospitals Trust (Appendix SC-E7) include awareness of the NHS Number as the primary identifier in their training.

The Summary Communications Plan (Appendix SC-C1) and the NHS Number Patient Awareness Campaign (see below) give details of initiatives that will allow organisations to promote the importance of the NHS Number to patients (requirement NN-SC-CR-02).

Requirement NN-SC-BR-07 will ensure that the NHS Number is involved in all communications, including those to the patient. This provides a process to ensure that patients know their NHS Number and are able to supply them when presenting or contacting any NHS provider organisation (requirement NN-SC-CR-04).

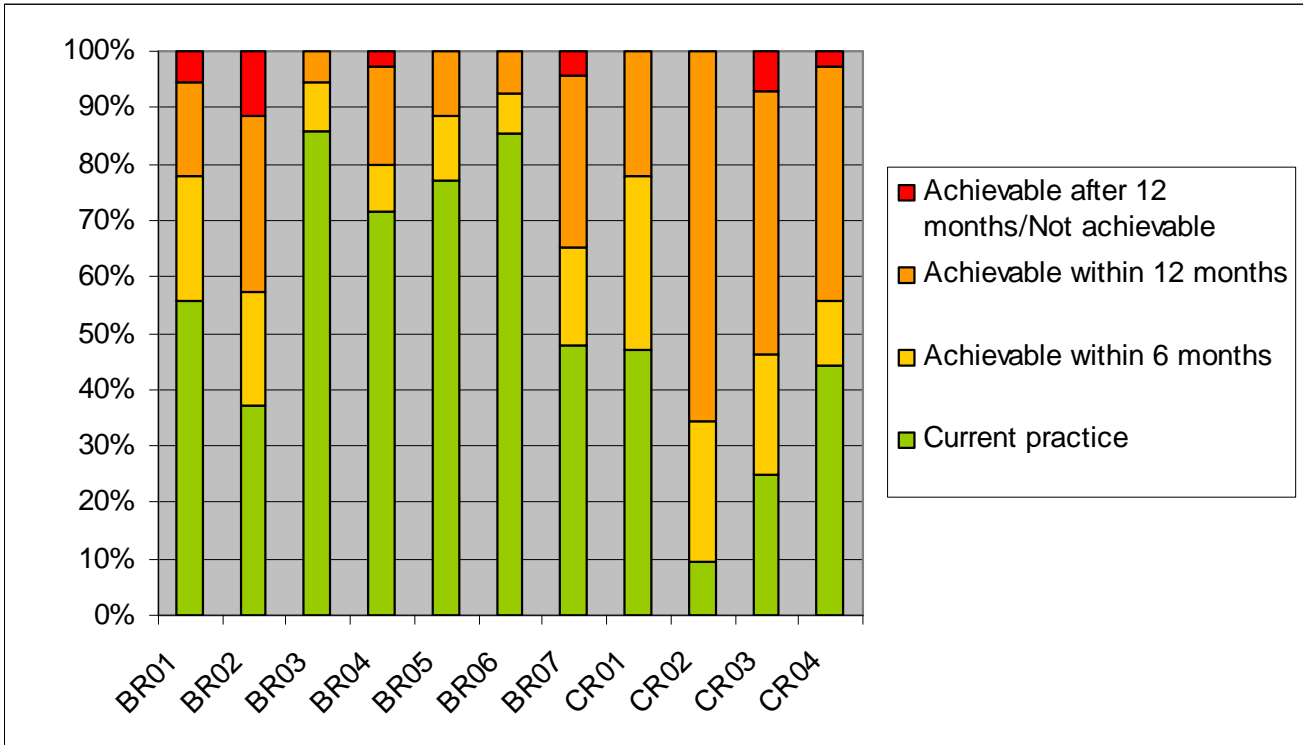
A summary of the above evidence is given below:

Requirement	Source of Evidence
NN-SC-BR-01 – Determining the NHS Number at the beginning of the episode of care	A&E – Sheffield Teaching Hospitals Trust (Appendix SC-E3) A&E – North Bristol Trust (Appendix SC-E1) South Staffordshire PCT (Appendix SC-E2) Referrals – Any site using Choose and Book
NN-SC-BR-02 – Using the NHS Number to find a local patient record	Sheffield Teaching Hospitals Trust (Appendix SC-E3) North Bristol Trust (Appendix SC-E1) Leeds Teaching Hospitals Trust (Appendix SC-E7) South Staffordshire PCT (Appendix SC-E2)
NN-SC-BR-03 – Using other demographic information to support NN-SC-BR-02	Leeds Teaching Hospitals Trust (Appendix SC-E7) South Staffordshire PCT (Appendix SC-E2)
NN-SC-BR-04 – Frequent batch or manual tracing	Every 2 days – Sheffield Teaching Hospitals Trust (Appendix SC-E3) Every week – North Bristol Trust (Appendix SC-E1) Twice a week - Nottingham University Hospitals Trust (Appendix SC-E4)
NN-SC-BR-05 – Data quality processes	Sheffield Teaching Hospitals Trust (Appendix SC-E3) Nottingham University Hospitals Trust (Appendix SC-E4)

	SC-E4) Calderdale and Huddersfield Foundation Trust (Appendix SC-E5)
NN-SC-BR-06 – NHS Numbers for newborns	Evidence provided from national statistics for baby leaflets ordered North Cumbria Hospital Trust (Appendix SC-E6) Royal Berkshire Foundation Trust (Appendix SC-E8)
NN-SC-BR-07 – Using the NHS Number in all communications	Royal Berkshire Foundation Trust (Appendix SC-E8) North Cumbria Hospital Trust (Appendix SC-E6) Most Exemplars currently include NHS Number in most communications
NN-SC-CR-01 – Processes to ensure awareness for staff	South Staffordshire PCT (Appendix SC-E2) Nottingham University Hospitals Trust (Appendix SC-E4) North Bristol Trust (Appendix SC-E1) Leeds Teaching Hospitals Trust (Appendix SC-E7)
NN-SC-CR-02 – Processes to ensure awareness for patients	See Summary Communications Plan (Appendix SC-C1) and the NHS Number Patient Awareness Campaign (below)
NN-SC-CR-03 – Processes to enable patients to know their NHS Number	See requirements NN-SC-BR-07
NN-SC-CR-04 – Training for staff in the implementation of this Standard	South Staffordshire PCT (Appendix SC-E2) Nottingham University Hospitals Trust (Appendix SC-E4) North Bristol Trust (Appendix SC-E1) Leeds Teaching Hospitals Trust (Appendix SC-E7)

Evidence of Current Practice and Feasibility from Review Pack

The graph below shows the summary of feedback supplied by Secondary Care providers in response to the Review Pack (see section 4.1).



This graph represents a total of 36 responses, of which two are Exemplar Sites.

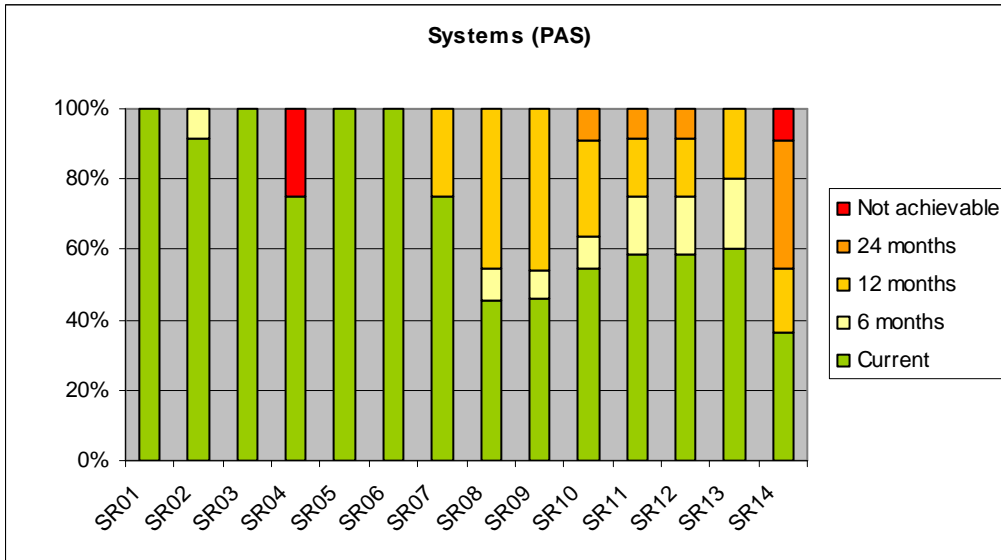
Notes:

- The requirements included in the first review pack varied slightly from the final requirements in this Standard (see Appendix 6). A second version of the review was sent out with the same requirements as in this Standard – as the variation between the versions was minimal the results are combined in the graph above. Requirement BR07 was not included in the first review pack. 13 responses are from the first version, 23 responses are from the second version.
- Comments for red responses to:
 - BR01: should be achieved for some areas within 12 months, but not all may be possible; dependent on move to CRS.
 - BR02: users need to be shown a consistent and 100% reliable way to retrieve a record, i.e. using the NHS Number doesn't always work; will improve with new system roll-out; for paper referrals users find it easier to transcribe demographics.
 - BR04: can only trace monthly due to volumes.
 - CR03: not possible where patients are difficult to identify; can be supplied when patients request it, but source should be the GP.
 - CR04: none supplied.

Suppliers

Various meetings with ESPs have been held as part of the consultation period (details can be found in Appendix SC-A3).

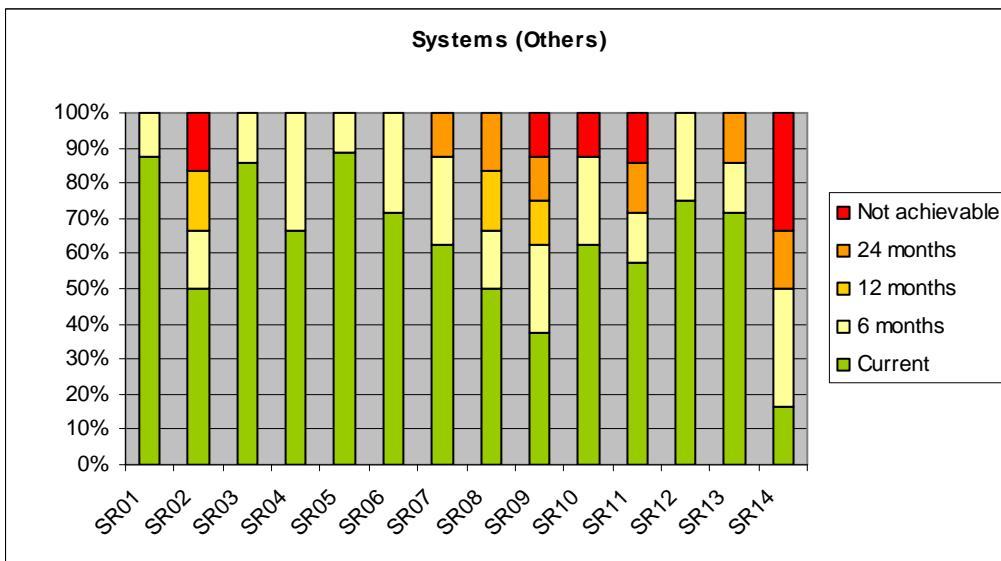
A summary of the responses from both suppliers and Trusts to the Review Pack (see section 4.1) are shown below for Patient Administration Systems (PAS) and other secondary care systems:



The graph represents a total of 12 responses.

Notes:

- The requirements included in the review pack vary slightly from the final requirements in this Standard (see Appendix 6).
- All red responses to SR04 were supplied by Trusts, not system suppliers, and reflect current capability rather than potential development paths.
- Comment for red response to SR14: possibility doubted; local id should be used in bar-code in the short term.



The graph represents a total of 10 responses.

Notes:

- The requirements included in the review pack vary slightly from the final requirements in this Standard (see Appendix 6).
- All red responses were supplied by Trusts, and reflect current capability rather than potential development paths.

NHS Number Public Awareness Campaign.

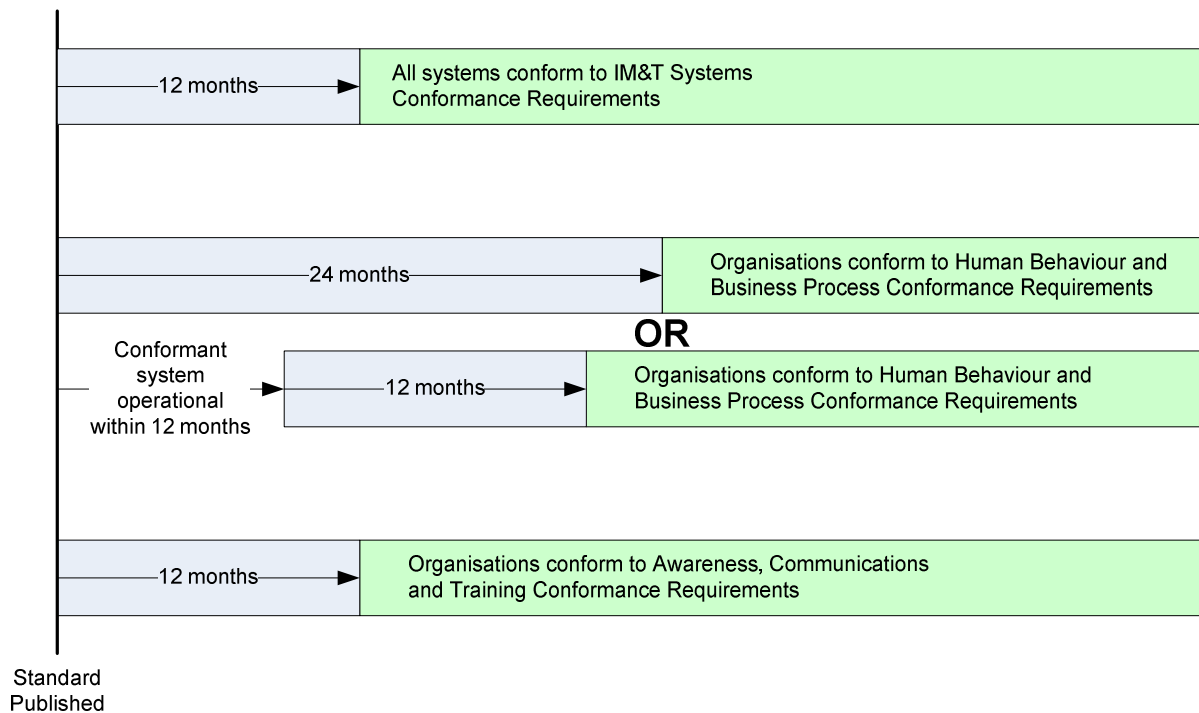
PCTs in the Teesside area are currently engaged in running a pilot project with the key objectives to:

- Increase the awareness and use of the NHS Number by NHS Staff
- Ensure the pilot population who have an NHS Number know what it is (it is not expected that people will know their number by heart, but will be able to reference it) and use it
- Encourage the pilot population who do not have and have not registered for an NHS Number do so and once received too use it regularly
- Understand and identify the best approach to implementation using lessons learned in preparedness for a national rollout across England and to share outputs with NHS Scotland, Ireland and Wales.
- Discuss and identify how to deal with:
 - Those under 18 years of age
 - Illegal immigrants
 - People with language or communication barriers
 - Other hard-to-reach groups
- Help define the most effective process of NHS Number allocation for various patient scenarios

It is anticipated that this pilot will be completed by the end of April 2009.

4.3. Plans for Implementation

A summary of the conformance timelines from section 3.2 are given below:



A high level Implementation Plan has been developed and tested in conjunction with Exemplar Sites and a small group of SHA colleagues.

The Implementation Plan will provide some direction and areas of consideration for local organisations to help with planning for the implementation of this Standard.

As the NHS Number programme of work within a Trust is primarily a change programme the Implementation Plan is based on desired outcomes and suggests stages for development of local plans, together with valuable lesson learned from Exemplar Sites and NPSA research.

A summary of the structure of the plan is detailed below:

Planning for required outcomes

- Outcome 1: Building awareness and commitment
- Outcome 2: Building Understanding of what needs to be done
- Outcome 3: Building the infrastructure
- Outcome 4: Delivering the Plan
- Outcome 5: Monitoring the Success of the Plan

See also section 4.7 regarding Implementation Phase Monitoring.

Further details on implementation planning are available in the Guidance.

See also Appendix SC-C1 – NHS Number Programme: Summary Communications Plan.

4.4. Migration Plans

Migration planning is included in the Implementation Plan (see section 4.3). As with implementation planning, this Standard and the supporting Guidance can only provide considerations for local organisations to include in their migration plans.

The migration planning from current positions to future state is based on lessons learnt from Exemplar Sites and NPSA research, a summary is given below:

- Senior Level /executive level endorsement. Data quality and the use of the NHS Number being given a board level visibility
- Joint working established between General Practice, PCTs and Trusts to ensure that wherever possible NHS Numbers are included in the referral form from Primary care to Secondary Care.
- Joint working to define how the NHS Number should appear on each document shared between PCT, Trust and Patient
- Confirming a patient's NHS Number at the point they present at a healthcare organisation, for example making an appointment at a GP Practice
- Raising awareness within the Trust to ensure that staff from all areas are aware of the importance of getting accurate demographics at the earliest point of contact with the patients
- Re-scripting telephone interactions with patients to encouraging patients to give NHS Numbers
- Reminder posters for A&E staff to define the critical questions to quickly obtain the demographics and explain the potential safety implications of inaccurate spelling
- Full implementation of the NPSA's Safer Practice Notices on wristband compliance, wristband standardisation and right patient, right blood.
- Training for administrative and clinical staff to ensure that patient identification procedures are correctly implemented and followed.
- Increasing use of electronic methods utilising barcodes and/or RFID to reduce typing/transposition errors
- Obtaining and verifying the NHS Number for a patient for whom it is not known as early as possible in the patient pathway
- Including the NHS Number on all correspondence with and relating to a patient
- The use of the NHS Number in all patient records. This is not intended to require healthcare organisations to reconfigure their medical records libraries unless there is a clear business benefit
- Resolving the cases where a patient's NHS Number cannot be found, for example strengthening local back office function and working with health communities back office and National Back Office functions
- The use of the NHS Number as an essential part of manual and electronic checking, to ensure correct patient identification and matching of patients with their care
- Establish an NHS Number programme, SHA Programme manager to coordinate progress of adoption of the standard across the health community area
- Establish an SHA Forum for the NHS Number programme where knowledge can be disseminated and monitoring of progress can be gathered

Further details on migration planning are available in the Guidance.

4.5. Human Behavioural, Organisational and Technical User Implementation Guidance

This Standard will be used by:

- All staff in NHS organisations involved in patient care in Secondary Care
- All staff contracted to the NHS involved in patient care in Secondary Care
- All staff in organisations contracted to the NHS involved in patient care in Secondary Care
- All staff working in, or contracted to, organisations involved in the delivery of systems, services or infrastructure support for either Secondary Care

The Guidance that supports this standard contains information for a wide range of staff, both strategic and operational. The Guidance provides information on implementation planning, details on how the conformance requirements should be implemented and storyboards showing best practice.

Costing

Due to the wide variation of staff, technology and current practices within secondary care provider organisations it is not possible to provide any costing that will be of benefit. However, as part of the development of this Standard the following areas are included for consideration during the costing of the implementation of this Standard:

- Technology:
 - Upgrades, replacements or reconfigurations of current IM&T systems and supporting infrastructure – procurement, deployment, migration and training
 - Redevelopment of existing hard-copy outputs, including letters, forms and wristbands
 - Addition of, or upgrades to, barcode/RFID technology
 - Addition of, or upgrades to, printing technology – for barcodes, wristbands, labels, documents
- Business Processes
 - Redevelopment of existing, and development of new, business processes, policies and guidance (including data quality and back office processes).
 - Staff training, communications and awareness
 - Patient awareness and communications

Cost to suppliers will be dependent upon the requirements of NHS organisations. Note that the LSP and NASP contracts stipulate that Data Set Change Notices (DSCNs) should be developed and deployed at no extra cost.

4.6. Safety

The primary driver for the development of this Standard is the improvement of patient safety. It is not perceived that the limited scope of this specific Standard (Secondary Care) will have a negative impact on safety.

As well as this Standard, a Standard is being developed for General Practice {R10} to ensure the NHS Number is effectively communicated between these two types of care setting. It is anticipated that secondary care organisations will need to work collaboratively with Primary Care Trusts and GPs to increase the awareness and consistent use of the NHS Number by the general public and healthcare providers.

Full compliance with the conformance requirements will deliver a quality service which has patient safety at the heart of all clinical and administrative processes. Complete adoption of the NHS Number will ensure that all organisations participating in the care of the patient will be able to safely and accurately

identify the patient by means of a nationally recognised unique identifier – the NHS Number; thus reducing the risk of patient information not being available at point of care due to the inability to link the correct records to the patient.

Any increase in the correct use of NHS Number is assumed to have only a beneficial effect on patient safety. However, inappropriate or incorrect use of the NHS Number may increase the safety risk. The list below shows the key safety risks associated with using the NHS Number. None of the risks are introduced by this Standard but there is potential for these risks to be multiplied as the NHS Number is used more within the NHS:

- Creation of duplicates and confusions
- Use of unverified NHS Numbers
- Use of invalid NHS Numbers
- Transcription errors
- Incorrect association of an NHS Number with a patient
- Incorrect association of an NHS Number with hard-copy records
- Confusion between the mother's and foetal care records
- Incomplete transfer of patient records during a gender reassignment or adoption process
- Use of local identifiers alongside the NHS Number
- Audit trails

Creation of duplicates and confusions

A duplicate is defined as one patient with more than one record (NHS Number); a confusion is defined as one record (NHS Number) being used by more than one patient.

Through the implementation of this Standard, the use of the NHS Number as a patient identifier between organisations, and between patients and organisations, will increase (see business requirements NN-SC-BR-06 and NN-SC-BR-07). This will result in the receiving organisations being able to use the NHS Number to identify a patient's record and will therefore reduce the number of duplicates (due to not needing to create new records) and confusions (by ensuring that the right patient is associated with the right record). Other demographic information will also be used, either as well as the NHS Number or in order to determine the NHS Number for a patient.

It is, however, important to note that the successful identification of patients is reliant on data quality, where staff ensure that the patient demographic information is accurate, and that sufficient searching is performed to identify patients who may have changed demographics, e.g. change of surname through marriage, change of address or change of registered GP.

There is also a risk that an increased number of duplicates will be created through the allocation of new NHS Numbers in Secondary Care. A local risk assessment will need to be undertaken before this functionality is enabled (see section 3.2.6).

Further details for the above are given in the Guidance that supports this Standard

Use of unverified NHS Numbers

A verified NHS Number is one that has been traced on a national database, either NSTS or the PDS. Unverified NHS Numbers can be entered into a system but will later be traced in order to verify them (see section 3.2.2 for details on the PDS and verification processes). As part of the Standard, requirements are included to ensure that, wherever possible, only verified NHS Numbers are used (see system requirements NN-SC-SR-02, NN-SC-SR-06, NN-SC-SR-07 and NN-SC-SR-08).

Use of invalid NHS Numbers

An area of common concern with regard to safety is the use of the NHS Number in place of the local identifier. Local identifiers are typically shorter than the NHS Number and the concern is that using a longer number will increase transposition errors. This concern is mitigated by the fact that systems will validate the NHS Number when entered (see system requirement NN-SC-SR-11). This will validate the format and the check-digit of the number entered and system should be designed to give a clear message to the user when an invalid number is entered. This will allow users to know that the number entered is not a valid NHS Number, rather than simply that the number has not matched a record.

As defined in the NHS Data Dictionary {R4} the NHS Number comprises 9 digits plus 1 check digit.

The check digit is calculated by multiplying each of first 9 digits by a factor, totalling these values and dividing by 11, the remainder is the check digit. This is known as a Mod 11 check digit number. This check digit ensures that the number entered is valid.

For NHS Numbers a remainder of 10 is invalid, leaving possible remainders 0-9 mapping to digits 0-9 for the check digit.

Using a Mod 11 check digit number as an identifier has improved safety implications; specifically around transposition errors.

For NHS Numbers, entering any check digit has a 1 in 10 chance of being correct (digits 0-9), which is a 90% chance being wrong. So, for a worst case scenario where much of the NHS Number is entered incorrectly, there will be a minimum of 90% probability of detecting the error.

This value increases to 100% for single errors and adjacent transpositions, which, as can be seen in the list below, make up the majority of all errors.

- single errors: a becomes b (60% to 95% of all errors)
- adjacent transpositions: ab becomes ba (10% to 20%)
- twin errors: aa becomes bb (0.5% to 1.5%)
- jump transpositions: acb becomes bca (0.5% to 1.5%)
- jump twin errors: aca becomes $bcba$ (below 1%) [lower for longer jumps]
- omitting or adding a digit (10% to 20%)
- phonetic errors: $a0$ becomes $1a$ [since the two have similar pronunciations in some languages, e.g. thirty and thirteen] (0.5% to 1.5%)

In the explanations above, a is not equal to b , but c can be any decimal digit.

(source: Verhoeff 1969) Note: Not specific to NHS Number.

Transcription errors

Transcription errors can occur when NHS Numbers are typed in. As mentioned above the validation of the number entered will usually inform the user of an error, but efforts should be made to eliminate these errors, rather than depending on the validation process.

As the NHS moves towards a progressively more technical environment, IM&T systems can support and reduce risks to patient safety. The implementation of bar-coded or RFID equivalents of the NHS Number on patient records and wristbands will provide the NHS with opportunities to eliminate transcription errors (see system requirement NN-SC-SR-14).

An example of the use of bar coding (albeit with local identifiers) can be seen in the Example Site Report for North Bristol Trust (Appendix SC-E1).

In order to provide interim solutions this Standard provides requirements that will ensure systems can support copy-and-pasting of the NHS Number between systems and clear display and printing of NHS Number in order to improve readability (see system requirements NN-SC-SR-09 and NN-SC-SR-10).

Further details for the above are given in the Guidance that supports this Standard.

Incorrect association of an NHS Number with a patient

Whenever an NHS Number is used, it should not be used in isolation. It is an effective way of finding a patient's record but other demographic information must be used to confirm that the correct record has been retrieved (see business requirement NN-SC-BR-03). This information should be at least the patient's name and date of birth but could also include address, gender and telephone number.

Further details for the above are given in the Guidance that supports this Standard.

Incorrect association of an NHS Number with hard-copy records

NHS Numbers printed on hard-copy should always come from the local system, which should output the NHS Number on all hard-copies and must always include other demographic information (see system requirement NN-SC-SR-08). Where hard-copy records do not have an NHS Number included by the system (e.g. hand-written forms and reports) then a label should be used (which will include other demographic information, see system requirement NN-SC-SR-08). Even when the NHS Number is handwritten (which is not recommended), for example on a form, other demographic information must also be included (see business requirement NN-SC-BR-07).

Confusion between the mother's and foetal care records

There is a known issue that any foetal care records are recorded as part of the mother's care record. Foetal identifiers have been stated as out of scope for this Standard (see section 2.1). Care providers should continue with current best practice when accessing and recording information relating to unborn babies.

Incomplete transfer of patient records during a gender reassignment or adoption process

The processes relating to transfer of administrative and clinical records, including the allocation of new NHS Numbers, in the cases of gender reassignment and adoption are complex. There are defined processes in place that are managed through the PDS National Back Office (NBO).

In summary:

Gender reassignment process: Legally, the process starts when a full gender recognition certificate is issued by a gender recognition panel. This is then communicated from the PCT or GP practice to the NBO. The NBO creates a new NHS Number with no reference to the old one. The old one is logically deleted. The NBO will not remove any references to the old identity in the patient's GP record but, instead, advises the PCT. Other NHS organisations should amend their records as appropriate. The new demographics should be used. Should anyone try and find the patient using their previous NHS Number or demographics details, they will be unsuccessful.

Adoption process: Once the adoption is approved by the courts, the NBO creates a new NHS Number with no reference to the old one. The previous NHS Number will be logically deleted.

The NBO then works with the PCT where the child is registered to ensure that any reference to their old name is removed from the medical records.

Use of local identifiers alongside the NHS Number

There is a risk that there could be confusion when a local identifier is used alongside the NHS Number. The Guidance that supports this Standard gives suggestions for clear labelling of the two different types of identifier.

The NHS Number should always be labelled/prefixed “NHS Number” or “NHS”, depending on the space available.

Local identifiers could be labelled/prefixed using some text to identify the local organisation or site – e.g. the initials of the Trust or Hospital.

Audit trails

As the NHS Number will not always be available immediately, hard-copy outputs may be produced without the NHS Number and then subsequently replaced with a version that does include the NHS Number. Organisations will need to consider how they track changes to hard-copy outputs, especially wristbands, as the original outputs may have been destroyed.

Local IM&T systems may provide this information, where suitable audit trails are in place, but consideration of manual processing must be included in order to mitigate the risk.

National Patient Safety Agency (NPSA)

The NHS Number is referenced in the following Safer Practice Notices:

- NHS Number {R7}
- Standardising wristbands improves patient safety {R8}
- Right patient, right blood: advice for safer blood transfusion (Electronic Clinical Transfusion Management System requirements) {R9}

NHS Number Input and Display

The NHS CUI Programme Team has published guidance on safe and effective input and display of the NHS Number. Details can be found in the document NHS Number Input and Display – User Interface Design {R2}.

Implementation Safety Considerations

Several safety considerations have been identified above and will require that Trusts consider these during their implementation planning. Trusts will be expected to carry out full risk assessments prior to implementing any of the conformance requirements to determine any additional local risks and to identify the full impact on their current processes and practices and implications for staff and patients of each.

Trusts will be expected to articulate clearly what staff should do when an NHS Number is not available and the policies and practices required to amend data once the NHS Number is located. Trusts will also need to have policies and processes in place to deal with Exception Cases (see section 3.2.5).

4.7. Maintenance and Update Process Plans

It is important that the NHS Number Standard is maintained and remains aligned with the delivery of patient care in secondary care settings. To ensure that the Standard is in step with policy developments and major changes to the delivering of care, there will need to be a robust process for monitoring and identify required changes to the standard.

Due to the complex and pervasive nature of the NHS Number there is a possibility that, through implementation of the standard, additional areas/issues for resolution are identified. Therefore two levels of monitoring and review will be adopted.

Implementation Phase Monitoring

During the implementation of the Standard there will be a process of tracking supplier conformance. This is intended to be in conjunction with existing user communities and will include regular monthly reviews

and monitoring of progress with a particular focus on any areas of the standard which are proving complex to implement or specific proposals for improved functionality or process change.

Within the existing programme governance structure the findings from this work will be provided to the NHS Number Programme Board to identify any areas which may prompt a review of the Standard.

On-going Maintenance

A full review of the Standard will be undertaken on a three year cycle unless required by the Programme Board during the implementation phase.

The maintenance of the Guidance is expected to be more frequent than the Standard, with a review within the first twelve months after publication. As other NPfIT programmes deliver compliance and guidance the Guidance supporting this Standard will be updated to align therewith.

The review will include a representative group of people, including both NHS-commissioned provider organisations and suppliers, who will, through a dedicated meeting/workshop, determine whether an update is required or whether the Standard remains fit for purpose. Recommendations will then be approved by the Programme Board and SRO before being submitted to the ISB HaSC.

Ownership

The Standard will be owned by NHS Connecting for Health. Should Connecting for Health cease to exist this responsibility will revert to the Department of Health.

4.8. Conformance Tests Specification

Assessing Applicable Systems

Local organisations will need to undertake a number of stages in order to ensure that all Applicable Systems are conformant with the Standard. The specification will follow the high level process outlined below:

Stage 1: Risk assessment to identify systems which need to be conformant, i.e. which are Applicable Systems (see also section 3.2.1)

It is expected that not all systems within an organisation will need to conform to the Standard; each provider organisation will need to undertake a local safety risk assessment which will identify which systems need to conform.

This assessment will need to consider the following criteria for any system that holds patient demographics:

- Does the system act as a master index to flow Patient Identifiable Data and NHS Numbers to other systems?
- Will the system be used to produce hard-copy outputs containing Patient Identifiable Data? (this includes patient facing information such as appointment letters)
- Does the system need to transfer information between organisations?
- Will the NHS Number ever be required to be stored against Patient Identifiable Data in the system (e.g. for audit purposes)?

If the answer to any of the above is Yes then it is an Applicable System.

Stage 2: Testing of Applicable Systems

Each system that needs to conform is defined as an Applicable System. These Applicable Systems will need to be tested against a standardised test plan which will identify tests and

scripts to be executed in relation to each Conformance Requirement specified in the Standard. The test log will then provide each organisation with an overview of where conformance has been achieved and where it is not currently possible.

Stage 3: Developing conformance

There are two main routes for achieving conformance with Applicable Systems that are either partially or totally non-conformant:

- Through a supplier upgrade to a conformant version: the acceptance test as part of taking the upgrade into live should include an execution of the test specification as detailed in the standard test plan
- Procurement and/or systems that require refresh: the conformance requirements must be used as part of the Invitation to Tender and authorities requirements

Monitoring Conformance

As part of the development of the Standard a range of key metrics were identified as being significant in measuring and monitoring use of the NHS Number throughout organisations and their systems and processes.

These metrics are described below and it is suggested that organisations use these as a way of monitoring progress during the implementation of this Standard. In order to be effective, metrics should be gathered prior to the commencement of any activities undertaken specifically in order to implement this Standard, therefore creating a baseline.

During, and beyond, the implementation metrics should be gathered at regular intervals in order to monitor progress.

Organisations should aim to gather metrics for the following:

- Local reporting:
 - Verified NHS Number inclusion on PAS/PMI records;
 - Verified NHS Number inclusion on all electronic patient records in all Applicable Systems (see above);
 - Data quality of core data items for tracing (e.g. missing date of birth, missing GP information, “default” or “dummy” data items, etc.);
 - Data quality of duplicate records;
 - Frequency of new record creation and NHS Number allocations (including, where possible, end-to-end tracking to determine whether these records turn out to be duplicates);
- National reporting:
 - PDS or NSTS batch tracing success;
 - NHS Number data quality from HES/SUS data (e.g. indicators, dashboards, comparators);
 - IG Toolkit results (see below);
- Electronic communications:
 - Verified NHS Number inclusion in system-to-system messages that include Patient Identifiable Data;
 - Verified NHS Number inclusion in person-to-person messages (e.g. emails) that include Patient Identifiable Data;
 - Verified NHS Number inclusion in online forms that include Patient Identifiable Data;
- Hard-copy outputs (system or human populated):
 - Verified NHS Number inclusion on paper document, letters, appointment cards, forms, etc. that include Patient Identifiable Data;
 - Verified NHS Number inclusion on wristbands;
 - Verified NHS Number inclusion on labels that include Patient Identifiable Data;
 - Format of NHS Number on any of the above (i.e. 3 3 4 format);

-
- Training and awareness:
 - Inclusions of NHS Number awareness in training course, inductions, materials (including on-line training).

Please note: this is not necessarily a comprehensive list and organisations may find further metrics of use in order to monitor conformance progress.

It is also important for organisations to monitor/measure exceptions (see 3.2.5). This will allow the organisation to adapt processes and working practices to address these exception cases in the most appropriate way.

Where possible, the above metrics should be broken down by department/care setting within the organisation in order to provide a more focussed monitoring strategy.

Information Governance Conformance Monitoring

The Information Governance Toolkit (IG Toolkit) is a self-assessment tool allowing organisation to score themselves against various IG requirements. The IG Toolkit version 8 (due late 2009) will include an updated version of Requirement 401 (which relates to NHS Numbers) in order to align it with the NHS Number Standard.

IGSoC (see section 3.3) current mandates the implementation of DH, NHS and NHS CFH policies and best practice guidance. IGSoC will be updated in version 7 to make explicit reference to the NHS Number Standard.

Operating Framework and Informatics Planning 2009/10

The NHS Operating Framework 2009/10 says:

“Making consistent and effective use of NHS numbers and the Personal Demographics Service will reduce the number of mis-associated records and will support the appropriate sharing of patient information with partners in the delivery of patient care.”

With the Informatics Planning document referring to the Advanced Notification (0803).

STEP

STEP is a tool that NHS organisations use during procurement (see section 1.4.3).

STEP will be updated to include details from the NHS Number Standard, in order to ensure conformance with the Standard. This is expected to be available in the first half of 2009.

The current NHS Number Policy and Guidance for STEP is shown in Appendix 5.

Business Change

As local organisations constantly check staff adherence to operational policies it is expected that the human aspect of the conformance to this Standard will be incorporated as part of existing operational auditing processes. In this way the burden of implementation will be minimised.

APPENDIX 1

Sponsor Statement(s)

Dear Colleague,

This refreshed programme of work builds upon the previous work on NHS Number by providing support, guidance and assistance to healthcare organisations in achieving complete adoption of the NHS number as defined in the NHS Operating Framework 2008/9. I will be acting as SRO for this programme as I believe it is fundamental to improving patient safety across the health service. Getting to grips with the use of the NHS number will:

- minimise the clinical risks caused through misallocation of patient information;
- resolve some of the barriers to safely sharing information across healthcare settings; and
- assist with long term follow up processes and Clinical Audit.

Recent reports to the National Patient Safety Agency (NPSA) about incidents arising from reliance on local hospital numbering systems make clear that this can create a real danger to patient safety, and in some cases can cause serious harm or even death. Between November 2003 and the end of August 2007 the NPSA received almost 1300 reports of incidents resulting from confusion and errors about patients' identifying numbers. Many of these involved duplication in local numbering systems – for example, two patients having the same number, or one patient having more than one number.

Using the NHS Number as the national identifier for patients will significantly improve safety by ensuring that patients are identified correctly. Local hospital numbering systems can still be used alongside the NHS Number where necessary.

We should no longer accept the level of misallocated records and the misidentification of patients as an undesirable consequence of the way we work, we must change the way we work.

The Patient Demographics Service (PDS), part of the National Spine, being delivered by NHS Connecting for Health, is soon to become the single authoritative source of demographic information and the NHS Number for the NHS in England, providing us with the opportunity to allocate a unique NHS number at the point of care where one does not already exist.

I am aware there are many pressing priorities, but this is important as it is a fundamental step to improving patient safety and I would appreciate you giving this matter your attention. As we move forward into a world where patient pathways regularly cross the traditional boundaries between organisations we must make sure that we have the necessary measures in place for safe, secure transfer of clinical information.

Yours Faithfully

Sir Bruce Keogh
NHS Medical Director
May 2008

APPENDIX 2

NHS Connecting for Health - Technology Office Statement

The increased and more effective use of the NHS Number is vital to the successful implementation of NHS CFH solutions at both national and local levels. The NHS Number is a key component of all architecture and messages defined by the Technology Office. This Information Standard will be an important part of the move towards a fully information integrated NHS.

Paul Jones, Chief Technology Officer, Technology Office, NHS Connecting for Health
30th July 2008

APPENDIX 3

Letter from Joint Medical Consultative Council (JMCC)

Professor Michael Thick
Chief Clinical Officer
NHS Connecting for Health
Richmond House
79 Whitehall
London SW1A 2NS

Dear Professor Thick

27 March 2008

JOINT MEDICAL CONSULTATIVE COUNCIL (JMCC) IT GROUP

At its last Meeting, the Joint Medical Consultative Council's IT Group raised a number of concerns which I would like to bring to your attention, hopefully with the aim of finding a way to address these.

The Group felt that a higher priority should be given to the adoption of NHS Number and noted that the Carter Review of Pathology Services had highlighted the need for the use of the NHS number and agreed that its adoption should be given a higher priority.

The Group identified two underlying reasons for the slow uptake of NHS Numbers. The first was the continuing use of Legacy Systems, which would require waiting for new systems and secondly, the failure to implement at a local level which was suggested to be primarily information governance issue. It was felt that this could be addressed through the Trust rating system.

Other substantive issues of concern to the Group were the slow process for generating an NHS Number for patients without numbers and also the difficulty in linking the records of the mother of a new born baby to the baby's records because it was considered unethical to provide a foetus with an NHS Number. As a result of this pre-birth imaging was held in the mother's records, even though such imaging could be required after birth.

The Group felt that these issues reflected the wider problem of lack of clinical input into the development of systems. I am sure that it would be happy to consider any solutions you proposed to these issues.

Members of the Group expressed particular concern about the functionality of Choose and Book, noting that it was often too slow, was being misused by local managers and being utilised by only a small number of consultants on-line. It was suggested that a group of consultants who have used the system be brought together to explain why, in some instances, the system was so slow. I understand that the BMA is already working with the Choose & Book team on this and would support the joint BMA/Connecting for Health work to broker meetings between organisations with different levels of success in using the system.

The Group also noted that National Programme for IT Local Ownership Programme (NLOP) was intended to facilitate local clinical engagement, which was, of course, welcomed. However, the members of the Group were unclear how such engagement would happen. We would welcome updates on how local ownership has facilitated local clinical engagement.

I look forward to hearing your views on these issues.

Yours sincerely

NHS Number Standard for Secondary Care (England)
Full Operational Information Standard



Alan Russell
Chairman
Joint Medical Consultative Council

cc Professor Sir Bruce Keogh, Medical Director, NHS

APPENDIX 4

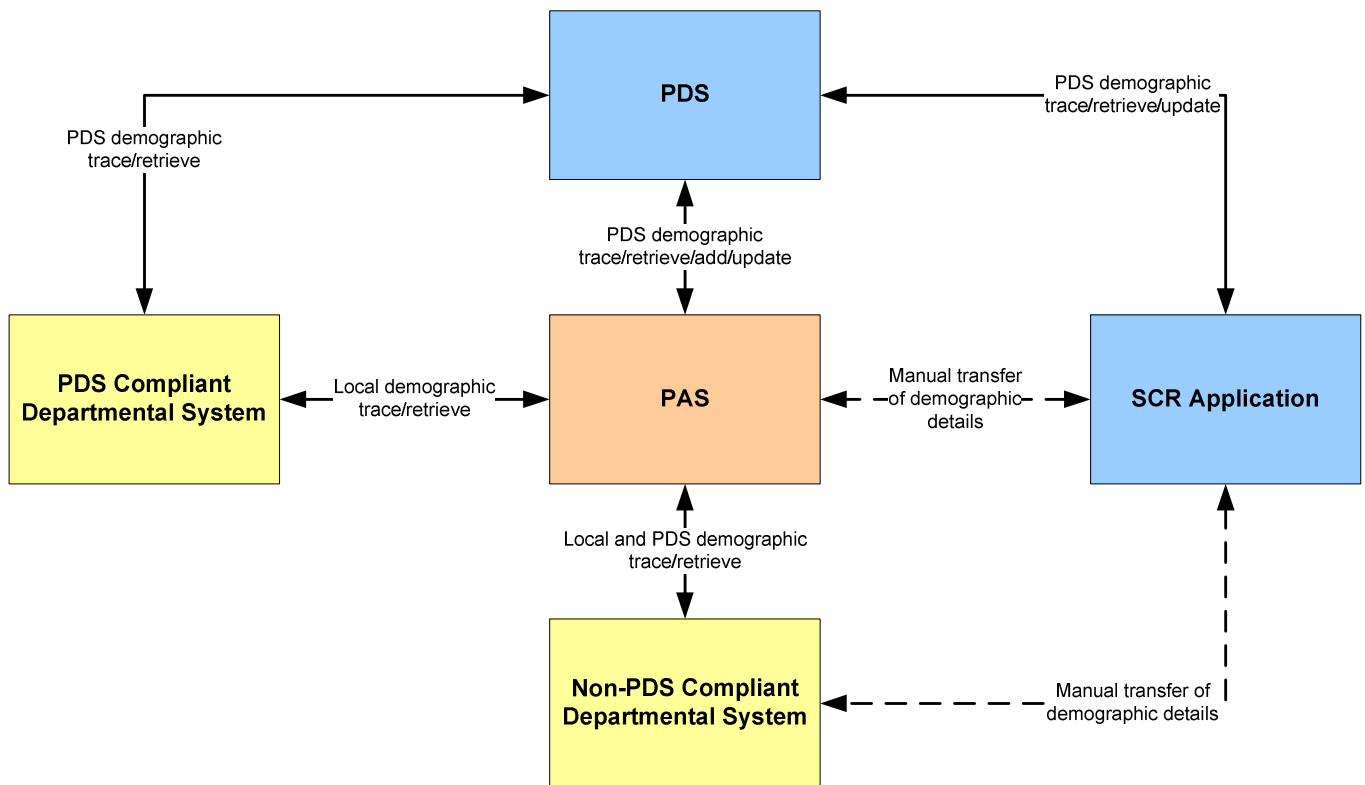
Technical Architecture Diagrams

Reviewed by:

- Bill Swire, Lead Architect, Spine, Technology Office;
- Nancy Pickering, Senior Technical Architect, Demographics and SDS Programme;
- Jon Calpin, Senior Implementation Manager, Summary Care Record Programme.

In the diagrams below, all information flows will include the NHS Number.

Departmental System Architecture Options for PDS Connectivity

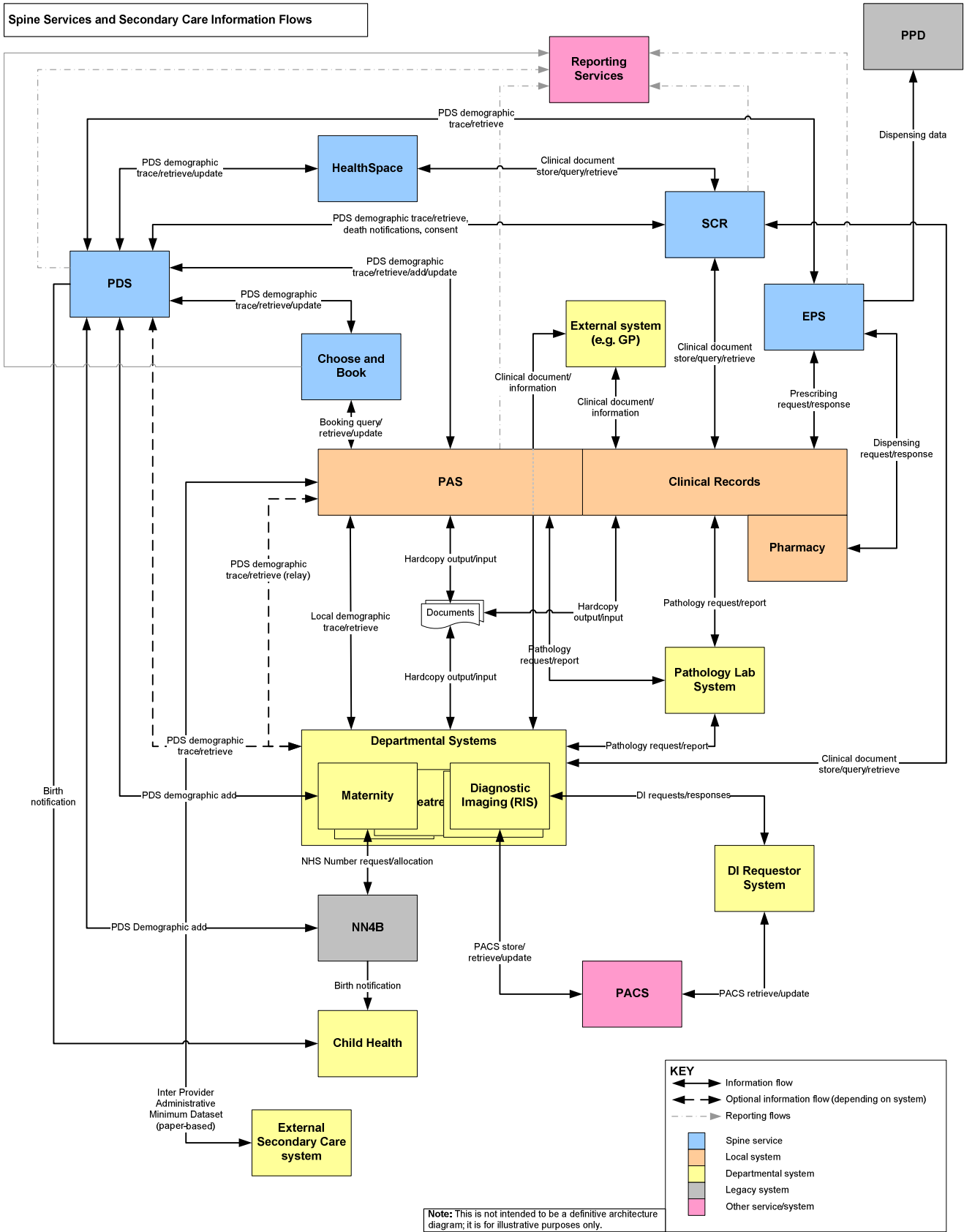


KEY

- ↔ Information flow
- ⇄ Optional information flow (depending on system)
- Spine service
- Local system
- Departmental system

Note: This is not intended to be a definitive architecture diagram; it is for illustrative purposes only.

Spine Services and Secondary Care Information Flows



APPENDIX 5

STEP – NHS Number Policy and Guidance (DRAFT)

NHS Number

Originator: Mike Andersson
Version/Date: 0.3, 27/05/08
Status: Post MW QA

History: 0.2, MW QA
0.1, initial draft

Introduction

Background

The NHS Number is a national unique identifier that makes it possible to share patient information across the whole of the NHS safely, efficiently and accurately.

It is a 10-digit number assigned to every individual registered with the NHS in England and Wales. The first nine digits are the identifier, with the tenth used as a check digit used to confirm the number's validity.

Objective

The consistent use and universal availability of the NHS Number will enable the NHS to realise the preferred position of having a single record for each patient. Duplicate records lead to the fragmentation of patient information and have potential clinical safety implications.

Use of the NHS number will be of benefit to all NHS staff who interface with patients, in that they can have confidence that they have the correct and complete record for the correct patient. The use of the NHS Number as the unique patient identifier will also help ensure that samples, images and other patient-related tests can be referenced back correctly and inserted into the correct records. The use of the NHS Number for management of patient-related data will facilitate improved matching of information to the correct patient.

Applicability

This section applies to all systems holding patient-identifiable information.

Policy

The NHS Number Programme is currently being reinvigorated and policy will be announced in due course. In the meantime it remains "mandatory to record the NHS number for each patient. The exception to this rule is A&E care."

For new IT systems and services the following apply.

- Systems must be capable of storing the NHS Number for each patient for whom information is held and have an additional field that will allow them to store the verification status (currently provided by the National Strategic Tracing Service) of the NHS Number.
- All patient-level outputs must include the NHS Number
- Systems should have the capability to verify the NHS Number (via NSTS)
- Where manual NHS Number input is permitted, systems must verify the format of the number on entry and flag the record for tracing against NSTS to ensure that the NHS Number added is actually the correct one for that patient.

Best Practice

NHS Number Standard for Secondary Care (England)
Full Operational Information Standard

Section 3.36 of *The NHS in England: the Operating Framework for 2008/09* (Department of Health Gateway Reference 9120) states:

"...individual NHS organisations working collaboratively within community-wide governance arrangements to produce an inclusive IM&T plan that...demonstrates how the following priorities will be delivered:

- mandated use of the NHS Number in all relevant administrative and clinical systems;"

In the section Patient Demographics and the NHS Number, Guidance on Preparation of Local IM&T Plans for 2008/09 (Department of Health Gateway reference 9196) states for specific types of NHS organisation:

- All NHS Providers
 - "plan for the complete adoption of the NHS Number as the mandated unique patient identifier in all relevant administrative and clinical systems;"
 - ensure that the NHS Number is used in all patient communications;
- PCT Commissioners
 - "by March 31st 2008 PCTs will ensure that the LHC IM&T plan includes plans to achieve full NHS Number compliance and usage in patient communications..."
- SHAs
 - "SHAs will ensure patch wide NHS Number compliance and usage in patient communications..."

Standards

Current Standards

Current requirements for the NHS Number, including the check digit algorithm and a list of datasets in which it must be included are provided in a set of pages within the NHS Data Dictionary website. A Fundamental Standard submission for the NHS Number was conditionally approved at Draft Stage by the Information Standards Board for Health and Social Care (ISB) in 2007. The submission will not, however, be published until the conditions set out by ISB have been met.

Emerging and Future Standards

An ISB-approved standard will be published in due course.

Standards for input and display of NHS Numbers are under development as part of the Clinical Applications and Patient Safety (CAPS) project of the CUI (Common User Interface) Programme. These are covered in the section on CUI-CAPS.

The National Patient Safety Agency (NPSA) has published a Safer Practice Notice on patient wristbands and the NHS Number must be included if available. This is covered in the section on Safer Patient Identifiers (SPID).

Further Information

The NHS Connecting for Health website provides further information on the NHS Number.

Guidance on Using the Questionnaire

Scope/Applicability

The NHS Number section of the Questionnaire should be completed for all procurements of systems holding patient-identifiable information.

The CUI section should also be completed for procurements of systems where users can input an NHS number or it is output to them. The SPID section should be completed for procurements of systems where patient wristbands are printed.

Questions and Guidance

#	Question	Cat.	Guidance						
NHSN.1	<p>Do all the systems which hold patient-identifiable data store the NHS Number and its verification status for each patient?</p> <table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>No</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Yes	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>	1	If patient-identifiable data is held the NHS number and its verification status must be stored.
Yes	<input type="checkbox"/>	<input type="checkbox"/>							
No	<input type="checkbox"/>	<input type="checkbox"/>							
NHSN.2	<p>Do all patient-level outputs include the NHS number?</p> <table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>No</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Yes	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>	1	This includes all displays of patient data on a screen as well as print-outs such as letters and reports.
Yes	<input type="checkbox"/>	<input type="checkbox"/>							
No	<input type="checkbox"/>	<input type="checkbox"/>							
NHSN.3	<p>Do all the systems holding patient-identifiable data have the capability to verify the status of NHS numbers?</p> <table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>No</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Yes	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>	2	Systems should be able to verify the status of NHS Numbers using the NSTS. For some systems, purchasers may need to make this a mandatory requirement.
Yes	<input type="checkbox"/>	<input type="checkbox"/>							
No	<input type="checkbox"/>	<input type="checkbox"/>							
NHSN.4	<p>Do any of the systems accept manual NHS number input?</p> <table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>No</td> <td><input type="checkbox"/></td> <td>End Section</td> </tr> </table>	Yes	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>	End Section	N/A	NHSN.5 need not be answered if NHS numbers are not input into a system manually but are, instead, imported via an interface.
Yes	<input type="checkbox"/>	<input type="checkbox"/>							
No	<input type="checkbox"/>	End Section							
NHSN.5	<p>Do the systems which accept manual NHS number input verify the format of the NHS number on entry and flag the record for tracing against NSTS?</p> <table border="1"> <tr> <td>Yes</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>No</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>	Yes	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>	<input type="checkbox"/>	1	The check digit calculation documented in the NHS Data Dictionary must be performed on manual entry and the record must be flagged for tracing.
Yes	<input type="checkbox"/>	<input type="checkbox"/>							
No	<input type="checkbox"/>	<input type="checkbox"/>							

APPENDIX 6

Review Pack Questions

Below are the requirements that were sent out in the Review Pack (see sections 4.1 and 4.2). The requirements in this Standard have been refined based on feedback, and as such, may vary from the requirements from which feedback responses were gathered.

Ref	Requirement
SR01	Applicable Systems must be capable of storing the NHS Number on patient records
SR02	Applicable Systems must record the verification status of each recorded NHS Number
SR03	Applicable Systems must allow users to find a patient record using the NHS Number as the only search criterion
SR04	Applicable Systems must allow users to find a patient record using the NHS Number as part of the search criteria in conjunction with other demographic information
SR05	Applicable Systems must allow users to find a patient record without using the NHS Number as part of the search criteria
SR06	Applicable Systems must include the verified NHS Number in any Patient Identifiable Data sent electronically (if available and verified at time of transmission)
SR07	Applicable Systems must display the NHS Number on any screen showing patient demographics (if available)
SR08	Applicable Systems must include the verified NHS Number on all hard-copy outputs containing Patient Identifiable Data (if available and verified at time of output)
SR09	Applicable Systems must only display and print the NHS Number in 3 3 4 format (e.g. 123 456 7890)
SR10	Applicable Systems must allow the NHS Number to be input, into the appropriate data input field on the screen, as 10 digits with or without spaces
SR11	Applicable Systems must validate the NHS Number when input
SR12	Applicable Systems should be capable of reporting patient records without a verified NHS Number recorded
SR13	Applicable Systems should be capable of reporting where the same NHS Number (verified or not) is recorded on more than one patient record
SR14	Applicable Systems should include a bar coded equivalent on all hard-copy outputs containing Patient Identifiable Data
BR01	The patient's NHS Number should be determined at the beginning of (or prior to) the episode of care, where possible and practical.
BR02	When supplied, the NHS Number should be used to retrieve an electronic patient record
BR03	When the NHS Number is used to retrieve an electronic record other demographic information supplied should be used to confirm the patient's identity and that the record retrieved belongs to that patient
BR04	Where the source of the record/data was not the PDS, batch or manual tracing of missing or non-verified NHS Numbers must be done as soon as possible after: <ul style="list-style-type: none">• the creation of the local record• a change to, or the addition of, the NHS Number on the local record• or a change to traceable demographic information on the local record
BR05	Data quality processes must be in place to resolve electronic patient records where the same NHS Number (verified or not) is recorded on more than one record
BR06	The parent or guardian must be given the NHS Number of the newborn(s) following allocation via the statutory notification of birth (through NHS Number for Babies Service (NN4B)) or the PDS
CR01	NHS provider organisations must promote the importance and use of the NHS Number to all staff
CR02	NHS provider organisations must promote the importance of the NHS Number to all patients
CR03	NHS provider organisations must have processes in place to ensure that patients know their NHS Numbers and are able to supply them when presenting to or contacting any NHS provider organisation
CR04	NHS provider organisations must ensure all staff are trained in the correct use of IM&T systems, human behaviours and business processes required to support this Standard