# Dental Record Keeping Standards: a consensus approach

NHS England and NHS Improvement

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# 1 Foreword

"*Care record standards exist to improve the safety and quality of health and social care, in particular to ensure that the right information is recorded correctly, in the right place, and can be accessed easily, by any authorised person who needs it, wherever they are*[1]*."*

With an increasing focus on dental care designed in collaboration with the patient and tailored to individual needs, dentistry is moving away from the legacy of traditional care boundaries towards a more integrated care pathway approach. Adopting a more integrated care approach requires better information sharing; clinicians, professionals and patients need to be able to access clinical records that move freely within a practice setting. As such, health care organisations need to be able to maintain this level of free movement, a requirement made possible by interoperable information systems which use common standards that detail what information is collected and how it is recorded.

A collaborative approach to information sharing will sit at the heart of improving management, care planning and patient safety, and is crucial to successfully enabling interoperability between care settings. These national record keeping standards will ensure that there is consistent, high-quality information in shared care records; this is an essential component in ensuring that information can flow freely between organisations and individuals who receive or provide care.

The purpose of this set of standards is not to reinvent existing guidelines[2] but to provide a consensus (between commissioners, regulators and the profession) which will ensure that key patient information is collected and recorded in a consistent way. In seeking agreement on the type of information practitioners should capture during patient treatment, input was sought from the widest possible range of clinicians from the Royal Colleges, specialist societies, professionals who work in social care and informatics, system suppliers, patient representative groups and people who use health and social care services, as well as carers and regulators.

This document and its recommendations are part of a broader programme of improvement and a reorientation of dental care in England. The development and promotion of a high quality, clinical care record that uses clear and consistent terminology within a recognised and structured patient-centric format is not a standalone initiative, nor is it unique to the dental care arena. The intent (one patient, one record, one standard) and co-design approach utilised within these standards are fully aligned with the current work of the Professional Record Standards Board.

The successful adoption of these consensus standards in conjunction with a collaborative approach to working between providers, regulators and commissioners will deliver a wealth of benefits including better outcomes for patients and professional satisfaction in comprehensive care, delivered effectively and efficiently.

Achieving a consensus for dental record keeping was made possible through the use of the Delphi method[3]. As a proven tool, its continued application to the subsequent

[1] https://theprsb.org/aboutus/
[2] The FGDP(UK) Guidelines available at: Clinical Examination and Record Keeping Guidelines.
[3] https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1365-2648.2003.02537.x

development of patients' oral health and dental care records is recommended. As such, it is suggested that NHS England Performance List Panels (PLDPs), Performance Advisory Groups (PAGs) and NHS England Dental Practice Advisors adopt the record keeping standards outlined in this document to ensure a national consistency within the PAG/PLDP proceedings. It is also expected that these standards be adopted by relevant stakeholders within the dental regulatory frameworks.

# 2 Executive Summary

This document details a consensus-led performance and quality improvement framework to provide a unified standard for clinical dental patient records. It is envisioned that adopting a unified standard will help to improve and maintain patient safety, raise standards of care and introduce interoperability of patient care records across healthcare systems, as the NHS moves towards realising the goal of 'one patient, one record, one standard.'

# 3 Introduction

## 3.1 Expectation for all healthcare professionals/registrants

Good record keeping is a requisite of competent professional practice, and is essential to the provision of safe and effective care.

In general, the function of good record keeping is to support:

- patient care and self-empowerment
- interdisciplinary and patient/clinician communication
- effective clinical judgements and evidence the decision-making process
- continuity of care
- clinical and medico-legal risk analyses and complications mitigation
- clinical audit, research, allocation of resources and performance planning

The quality of record keeping reflects the standard of professional practice. From a professional and regulatory point of view, good record keeping serves a dual purpose:

- For the performance management of practitioners/registrants to ensure patient safety by maintaining an accurate record, which shall include appropriate information in relation to the care and treatment provided to each patient.

- For the quality improvement of patient dental, medical and social care through best practice.

A high-quality record will follow a logical sequence with clear checkpoints and goals; it will document those things both done and not done, with a rationale, particularly if the action deviates from an agreed protocol[4]. The record will evidence the properly considered decisions relating to patient care and demonstrate that practitioners/registrants have exercised their professional accountability and have fulfilled their legal and professional duty of care[5].

### 3.2 Aim

The aim of this initiative was to produce a set of standards to support consistent and accurate record keeping within the dental profession. To ensure this ambition was realised in accordance with the Faculty of General Dental Practice (UK) (FGDP(UK)) guidelines, an additional intention of this work was to engage the profession and relevant stakeholders to establish a consensus on record keeping through the Delphi methodology.

### 3.3 Objectives

The objectives of this document are as follows:

- To provide a standard for record keeping that has been designed using a collaborative, consensus- based methodology.
- To be used as a reference document that enables consistency in record keeping standards across the profession.
- To support the rebalancing of regulation by producing a consensus-led single threshold standard. The intent is for the standard to be consistently applied by all stakeholders who are integral to dental profession regulation and performance management.
- To provide templates based on consensus, detailing information that should be recorded on new patient, recall and urgent patient examinations.
- To deliver a framework for interoperability between healthcare systems and inform the wider digital agenda.

## 4 Consensus approach

A Clinical Reference Group (CRG; see Appendix 1 for member breakdown), was formed and tasked with conducting the preliminary scoping exercise during which the approach and methodology were identified. The CRG selected the Delphi method[6]

[4] https://www.nursinginpractice.com/article/guide-case-notes-and-record-keeping
[5] http://www.unitetheunion.org/uploaded/documents/Job%205408%20Record%20keping11-7737.pdf
[6] https://obgyn.onlinelibrary.wiley.com/doi/abs/10.1576/toag.7.2.120.27071

as the most robust methodology to deliver a consensus-based standard. Developed in the 1950s, the Delphi method is an organised procedure that involves a series of surveys or phases to collect information from all relevant stakeholders. For more information regarding achieving consensus through the Delphi method, see Appendix 4.

In accordance with the Delphi approach, a four-phase process was implemented to achieve the desired consensus design.

With reference to the Faculty of General Dental Practice (UK) (FGDP(UK)) guidelines, dental practitioners across the profession and other relevant stakeholders were consulted to obtain consensus through the Delphi methodology.

For a full breakdown of the methodology utilised within this paper, including details for each phase of the process, see Appendix 1.

The final stage analysis results were used to produce record keeping prototype templates categorised into three groupings:

- New Patient Examination
- Recall Patient Examination
- Urgent Patient Examination

The template for each grouping is presented below in separate tables to show which details are considered essential, aspirational, conditional or not required.

## 4.1 New Patient Examination Table

**Figure 1.** The table below lists items, which must, should, and could be recorded when a patient is first seen by a General Dental Practitioner (GDP).

| Item | Essential | Aspirational | Conditional on presentation | Not required |
|---|---|---|---|---|
| **Personal Information** | | | | |
| Name | √ | | | |
| Date of birth | √ | | | |
| Phone No. | √ | | | |
| Address | √ | | | |
| Occupation | | | √ | |
| Payment method | √ | | | |
| Medical History | √ | | | |
| Reason for attendance | √ | | | |
| **Social history** | | | | |
| Smoking | | √ | | |
| Alcohol | | √ | | |
| Diet | | √ | | |
| Contact sports | | | √ | |
| Musical instruments | | | | √ |
| Chewing unrestricted | | | √ | |

| | | | | |
|---|---|---|---|---|
| Dental anxiety | | √ | | |
| Effect of dentition on Quality of Life | | | √ | |
| **Examination** | | | | |
| Extra oral examination | √ | | | |
| Soft tissue examination | √ | | | |
| BPE | √ | | | |
| Initial charting and update of teeth | √ | | | |
| Caries | √ | | | |
| Defective restorations | √ | | | |
| Existing restorations | √ | | | |
| Previous endodontic treatment | | √ | | |
| Mobility of teeth | | √ | | |
| Prostheses | √ | | | |
| Occlusion | | √ | | |
| Occlusal abnormality | | √ | | |
| Tooth wear | | √ | | |
| Recall Interval | | √ | | |
| **Radiographs** | | | | |
| Record and justify radiographs | √ | | | |
| Clinical evaluation of radiographs | √ | | | |
| Quality of X-rays graded | √ | | | |
| *Nature of the safeguarding procedures may require additional recording of information. | | | | |

## 4.2 Recall Patient Examination Table

**Figure 2.** The table below lists items, which must, should, and could be recorded when patient is seen by a General Dental Practitioner (GDP) for their regular dental examination.

| Item | Essential | Aspirational | Conditional on presentation | Not required |
|---|---|---|---|---|
| **Personal Information:** | | | | |
| Name | √ | | | |
| Date of birth | | | √ | |
| Phone No. | | √ | | |
| Address | | √ | | |
| Occupation | | | | √ |
| Payment method | | √ | | |
| Medical History | √ | | | |
| Reason for attendance | | | √ | |
| **Social history** | | | | |
| Smoking | | √ | | |
| Alcohol | | √ | | |
| Diet | | √ | | |
| Contact sports | | | | √ |
| Musical instruments | | | | √ |
| Chewing unrestricted | | | √ | |

| | | | | |
|---|---|---|---|---|
| Dental anxiety | | | √ | |
| Effect of dentition on Quality of Life | | | √ | |
| **Examination** | | | | |
| Extra oral examination | | √ | | |
| Soft tissue examination | √ | | | |
| BPE | √ | | | |
| Initial charting and update of teeth | | √ | | |
| Caries | √ | | | |
| Defective restorations | √ | | | |
| Existing restorations | | √ | | |
| Previous endodontic treatment | | | √ | |
| Mobility of teeth | | √ | | |
| Prostheses | | | √ | |
| Occlusion | | | √ | |
| Occlusal abnormality | | | √ | |
| Tooth wear | | | √ | |
| Recall interval | | √ | | |
| **Radiographs** | | | | |
| Record and justify radiographs | √ | | | |
| Clinical evaluation of radiographs | √ | | | |
| Quality of X-rays graded | √ | | | |
| *Nature of the safeguarding procedures may require additional recording of information. | | | | |

## 4.3 Urgent Patient Examination Table

**Figure 3.** The table below lists items, which must, should, and could be recorded when patient is seen by a General Dental Practitioner (GDP) for an urgent dental visit.

| Item | Essential | Aspirational | Conditional on presentation | Not required |
|---|---|---|---|---|
| **Personal Information:** | | | | |
| Name | √ | | | |
| Date of birth | | | √ | |
| Phone No. | | √ | | |
| Address | | √ | | |
| Occupation | | | | √ |
| Payment method | | √ | | |
| Medical History | √ | | | |
| Reason for attendance | √ | | | |
| **Social history** | | | | |
| Smoking | | | √ | |
| Alcohol | | | √ | |
| Diet | | | | √ |
| Contact sports | | | | √ |
| Musical instruments | | | | √ |

| | | | | |
|---|---|---|---|---|
| Chewing unrestricted | | | √ | |
| Dental anxiety | | | √ | |
| Effect in dentition on Quality of Life | | | | √ |
| **Examination** | | | | |
| Extra oral examination | | | √ | |
| Soft tissue examination | | | √ | |
| Initial charting | | | √ | |
| BPE | | | | √ |
| Caries | | | √ | |
| Defective restorations | | | √ | |
| Existing restorations | | | | √ |
| Previous endodontic treatment | | | | √ |
| Mobility of teeth | | | √ | |
| Prostheses | | | √ | |
| Occlusion | | | | √ |
| Occlusal abnormality | | | √ | |
| Tooth wear | | | √ | |
| Recall interval | | | | √ |
| **Radiographs** | | | | |
| Record and justify radiographs | √ | | | |
| Clinical evaluation of radiographs | √ | | | |
| Quality of X-rays graded | √ | | | |
| ***Nature of the safeguarding procedures may require additional recording of information.** | | | | |

# 5 Discussion

The use of the Delphi method has proved to be successful in delivering consensus around which details to include when recording patient information. The templates outline which criteria is considered essential, aspirational, conditional on presentation or not required, and each template can be employed as a standard to encourage consistency in the collection and storage of clinical dental patient data.

Each of the three templates presents different requirements for information. Differentiating between types of records by separating them into three models allows for the representation of distinct circumstances under which practitioners record dental information. In doing so, it is possible to incorporate a variety of criteria appropriate to each examination setting whilst maintaining consistency and data integrity.

In delivering on the set objectives outlined in the introduction, this body of work has realised the following goals:

- Providing a consistent standard for record keeping using a collaborative, consensus-based approach.

- Opening the possibility of rebalancing regulation; this will be realised through wider stakeholder engagement once implementation and advocacy of the standard is conducted in each respective stakeholder domain.

In addition, one of the primary objectives of this document is to help substantiate the goal of one patient, one record, one standard. By providing a recommended standard of criteria to be recorded on a patient's dental care record, aligned with ideals instituted by the PRSB, this agenda of interoperability between healthcare settings and systems will be supported by the implementation of the templates produced from this study.

The ability to engender a fluency and fluidity between healthcare systems in a progressive digital landscape will primarily be achieved by the methods set out in the National Information Board's white paper, Personalised Health and Care 2020[7], which mandates that all NHS clinical coding systems must adopt the Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) standard by 2020[8].

SNOMED CT will provide the foundation for a unified and agreed criterion for coding terminology. These standards will begin to reduce the transitional burden, and iterative developments from revision cycles will continue this trend. This adaptability will further prove useful in the context of possible reforms to the national dental contract.

# 6 Recommendations

The record keeping standards, produced by this consensus approach, are to be adopted by NHS England Performance List Panels, Performance Advisory Groups and Dental Advisors. It is anticipated that these standards will be adopted by the relevant stakeholders within the dental regulatory frameworks. Most importantly, it is expected that all general dental practitioners will refer to this standard.

The security and transmission of data is the data owner's responsibility. Therefore, please ensure that all records are maintained and utilised in accordance with current professional, legislative and clinical standards guidance.

[7] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/384650/NIB_Report.pdf
[8] [ARCHIVED CONTENT] UK Government Web Archive - The National Archives

# 7 Appendix 1 Methodology

## 7.1 The Delphi method, the Clinical Reference Group and the phase one expert panel

### 7.1.1 The Clinical Reference Group

The CRG consisted of members representing:

- Care Quality Commission (CQC)
- General Dental Council (GDC)
- Business Service Authority (BSA)
- Healthwatch
- Local Dental Committees (LDC)
- Public Health England (PHE)
- Dental Advisors (NHSE)

A table of the named members is as follows:

| Name | Organisation |
|---|---|
| Divyash Patel | Clinical Lead, OCDO, NHSE |
| Tim Newton | Professor of Psychology as Applied to Dentistry, KCL |
| Michael Williams | Dental Practice Advisor, NHSE |
| Tom Norfolk | Dental Practice Advisor, NHSE |
| Abhi Pal | Vice Dean, FGDP(UK) |
| Carrie Bradburn | Dental Practice Advisor, NHSE |
| Paul Gray | Senior Clinical Advisor, BSA |
| Alex Steward | Healthwatch |
| Amanda Crosse | Consultant, PHE |
| Lesley Gough | Consultant, PHE |
| Alison McLaren | General Dental Practitioner |
| Shamir Mehta | Senior Clinical Advisor, GDC |
| Hannah Winter | Policy Manager, GDC |
| John Milne | Senior National Dental Adviser, CQC |

In this instance, the CRG and the Phase One expert panel constituted the same members. However, this is not an imperative by design. It is entirely possible, should this method be applied in a different context, that the two groups would not be synonymous. The nomenclature indicating the Phase One expert panel has been employed for clarity.

The Phase One expert panel was tasked to identify a core information set which must be recorded in support of the clinical examination of a patient's dentition, supporting tissues and assessment of their oral health status.

The remit was to test the extant guidance: 3rd edition of the FGDP(UK) Guidelines for Clinical Examination and Record Keeping (2016).

This guidance was decided as a suitable foundation to build upon and was viewed as a resource that could be utilised to minimise duplication of effort.

The FGDP(UK) guidance had a degree of applicability across primary care dentistry, but did lack the consensus-design element, which was required in the selected Delphi methodology[7]. This element was imperative to obtain cross-stakeholder engagement and provided the best possible basis to guard against possible future fragmentation.

### 7.1.2 The Delphi method

The CRG elected to adopt the Delphi method[9]. The survey process is repeated, using evidence judged by an expert panel[10,11], until consensus is reached. It has been used, successfully, to collect expert opinion in the absence of a robust evidence base to provide interim best practice and guidance pending further research/evidence[12].

A four-phase process was implemented to achieve the desired consensus design.

### 7.1.3 Phase One

The Phase One expert panel was given an online survey that requested ratings of relevance to be applied to a list of proposed items. This data was used to produce a short list of those items rated most relevant.

### 7.1.4 Phase Two

The short list was again rated by the members of the Phase One expert panel, for relevance and clarity, using the same methodology as the previous stage. This produced a final item list. Before ratings were obtained, the panel were given feedback on the overall findings from Phase One.

### 7.1.5 Phase Three

Dental practitioners were asked, by means of an online survey, to provide their views on the recommended final list of items for recording. This exercise explored the extent to which the recommendations were acceptable to dental practitioners.

Responses were received from 2840 dental practitioners (11.8% of practitioners), and this collective became the Phase Three practitioner group.

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[9] Newton, J. T., Al-Rawahi, S., Rosten, A., & Iricijan, J. (2019). Achieving consensus on clinical examination and record keeping in NHS dentistry: a Delphi approach. *British Dental Journal*, *227*(3), 203-210.

[10] https://www.ncbi.nlm.nih.gov/oubmed/11560634

[11] https://onlinelibrary.wiley.com/doi/full/10.1046/j.1365-2648.2003.02537.x

[12] https://obgyn.onlinelibrary.wiley.com/doi/abs/10.1576/toag.7.2.120.27071

### 7.1.6 Phase Four

A Phase Four expert panel was appointed and an online survey of 18 individuals representing professional bodies working in UK dentistry were asked to review each item, in the light of data from the previous stages.

These individuals were asked to focus on the feasibility of implementation of the recommendations. Thus, they were asked to appraise the extent to which each item could be practicably implemented within the practicalities of current NHS dental practice. The following rating categories applied:

- Essential
- Aspirational
- Conditional on presentation
- Not required

# 8 Appendix 2 Results

Listed below are the results for each phase of the approach:

## 8.1 Phase One

A major source of confusion regarding the items in terms of clarity was whether the information recorded at previous appointments could be assumed to be present.

Based on feedback from the Phase One expert panel, an additional criterion was added to the list.

### 8.1.1 Phase Two

Consensus was defined using the nomogram of Lynn et al, 1986[13]. For items where no simple consensus could be achieved using these criteria, the lowest rating at which consensus could be achieved was determined.

One item remained unclear. As a result, “Chewing restricted” was changed to “Chewing restriction due to oral ill health, for example caries, TMJ disorder etc.” for the final survey.

### 8.1.2 Phase Three

This phase surveyed 23 000 dental practitioners of whom 2840 responded to the survey. The responses of the phase three practitioner group were classified according to a simple majority as to whether each item was:

- Essential
- Aspirational
- Conditional on presentation
- Not required

[13]https://journals.lww.com/nursingresearchonline/Citation/1986/11000/Determination_and_Quantification_Of_Content.17.aspx

Where no simple majority was present, the lowest rating at which consensus could be achieved was determined. No item in the list was rated as not required by the majority of practitioner group. Most practitioners rated every item on the list as required.

### 8.1.3 Phase 4

There was a total of 18 participants in the phase four expert group; this group determined 48 items to be essential across the appointment type categories.
The phase four expert group were instructed to focus on the practical feasibility of recommendation implementation. This new analysis resulted in a marked difference between the phase one and phase four expert groups. A decision was then made; to gain consensus of the profession, a higher threshold of compliance would be applied to the phase three practitioner group. This resulted in the formulation of, for statistical purposes, the phase four practitioner group.

The phase four practitioner and expert groups had the greatest parity in threshold compliance between any groups; 78% and 80%, respectively.

Through this lens, the phase four practitioner group viewed fewer items as essential, when compared to the phase four expert group. All items that were deemed essential by the phase four practitioner group were mirrored by the phase four expert group.

Overall, the phase four expert group had deemed more items as essential, when compared to the phase four practitioner group; 28 and 48, respectively.
These 28-items formed the recommended criteria for the proposed record templates.
More granular detail of the results obtained are considered by (Newton et al 2019)[14]

# 9 Appendix 4 Delphi methodology: achieving consensus

**Table 2. Proportion of Experts (Above the Line) Whose Endorsement Is Required to Establish Content Validity Beyond the .05 Level of Significance**

| Number of Experts | Number of Experts Endorsing Item or Instrument as Content Valid | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2 | 1.00 | | | | | | | | |
| 3 | .67 | 1.00 | | | | | | | |
| 4 | .50 | .75 | 1.00 | | | | | | |
| 5 | .40 | .60 | .80 | 1.00 | | | | | |
| 6 | .33 | .50 | .67 | .83 | 1.00 | | | | |
| 7 | .29 | .43 | .57 | .71 | .86 | 1.00 | | | |
| 8 | .25 | .38 | .50 | .63 | .75 | .88 | 1.00 | | |
| 9 | .22 | .33 | .44 | .56 | .67 | .78 | .89 | 1.00 | |
| 10 | .20 | .30 | .40 | .50 | .60 | .70 | .80 | .90 | 1.00 |

Note: The caution over using the standard error of the proportion when $n \leq 10$ (Downie & Heath, 1974) does not apply in this situation because only when $p > q$ is there significance, and any nonunique $p$ [×] $q$ solutions are irrelevant.

[14]Newton, J. T., Al-Rawahi, S., Rosten, A., & Iricijan, J. (2019). Achieving consensus on clinical examination and record keeping in NHS dentistry: a Delphi approach. *British Dental Journal*, *227*(3), 203-210.

In order to define consensus, the following method of Lynn et al 1986[15] was adopted.

With 8 raters there was a need for 7 members of the panel to achieve consensus. This was defined as the point starting from viewing the item as “Essential” and working backwards to ‘’Does not need to be recorded”.

## 10 Glossary

**GDC** – General Dental Council

**GDS** – General Dental Service

**FGDP(UK)** – Faculty of General Dental Practice

**LDC** – Local Dental Committee

**LDN** – Local Dental Network

**NHS** – National Health Service

**NHSE** – National Health Service England

**OCDO** – Office of Chief Dental Officer for England

**PAG** – Performance Advisory Group

**PHE** – Public Health England

**PLDP** - Performance List Decision Making Panel

**PRSB** – Professional Record Standards Body

[15] https://journals.lww.com/nursingresearchonline/Citation/1986/11000/DeterminationandQuantificatonOfContent.17.aspx