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# OBSTETRIC ANAESTHETIC STANDARD

FINAL REPORT
June 2025

# Document Management

## Revision History

| Version | Date | Summary of Changes |
|---|---|---|
| 0.1 | 27/03/25 | Initial draft. |
| 0.2 | 06/04/25 | Updated following analysis of survey and review by project team. |
| 0.3 | 13/05/25 | Updated to reflect update to standard following PRSB's Change Advisory Group |
| 0.4 | 19/05/25 | Updated following feedback from project board. |
| 1.0 | 20/11/2025 | Version number uplifted following approval by project board |

## Reviewers

| Reviewer name | Title / Responsibility | Date | Version |
|---|---|---|---|
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| Steve Bentley | Clinical Safety Officer | 28/03/25 | 0.1 |
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| | | | |
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## Approved by

| Name | Title/Responsibility | Date | Version |
|---|---|---|---|
| Project Board | Project Board | 20/11/25 | 0.4 |
| PRSB Assurance Group | Assurance Committee | 23/11/25 | 0.4 |

## Glossary of Terms

| Term / Abbreviation | What it stands for |
|---|---|
| CQC | Care Quality Commission |
| DAPB | Data Alliance Partnership Board |
| DMRS | Digital Maternity Record Standard |
| EPR | Electronic Patient Record |
| ERD | Entity Relationship Diagram |
| GA | General Anaesthetic |
| GIRFT | Getting it Right First Time |
| MNVP | Maternity and Neonatal Voices Partnerships |
| MSDS | Maternity Services Data Set |

| | |
|---|---|
| N/A | Not Applicable |
| NHS | National Health Service |
| NHSE | National Health Service England |
| NOAD | National Obstetric Anaesthetic Database |
| OAA | Obstetric Anaesthetists’ Association |
| OAS | Obstetric Anaesthetic Standard |
| PRSB | The Professional Record Standards Body |
| QOSC | Quality and Outcomes Subcommittee |
| RCOG | Royal College of Obstetricians and Gynaecologists |
| SCATA | Society for Computing and Technology in Anaesthesia |
| SNOMED CT | Systematised Nomenclature of Medicine Clinical Terms |
| SUV | Service User Voice |
| UHB | University Health Board |
| QI | Quality Improvement |

## Planned Review Date and Route for User Feedback

The next maintenance review of this document is planned for 2028.

Please direct any comments or enquiries related to the project report and implementation of the standard to support@theprsb.org

## Gender Inclusivity

While most people using maternity and perinatal services are women, the Care Quality Commission (CQC) Maternity Survey (2024) found that 1.58% of respondents stated that their gender was not the same as their sex registered at birth. Intersex, transgender, and non-binary people experiencing pregnancy and birth can experience particular health inequalities including poorer access and a lack of information and support in relation to their specific clinical and care needs within maternity services. The content in this document also applies to these individuals.

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# 1 Executive Summary

## 1.1 Background and Rationale

The Obstetric Anaesthetists' Association (OAA), through its Quality and Outcomes Subcommittee, commissioned the Professional Record Standards Body (PRSB) to develop a national Obstetric Anaesthetic Standard (OAS). This initiative builds upon the 2021 Making Anaesthetic Care Count report and responds directly to findings from the GIRFT Anaesthesia and Perioperative Medicine Report and the Reading the Signals report on maternity safety. These reports highlighted the inadequate representation of anaesthetic care data in national health datasets, and the consequential challenges in quality assurance, service improvement, and policy development.

The now defunct National Obstetric Anaesthetic Database (NOAD) and other efforts underscored the need for a more sustainable and structured method of data collection. With anaesthesia integral to obstetric care especially in high-frequency procedures such as caesarean births the lack of accurate, structured, and codified anaesthetic data significantly undermines efforts to benchmark outcomes or signal emerging risks. The OAS was conceived to close this gap through the identification of a minimum viable dataset.

## 1.2 Project Aim and Objectives

The overarching aim of the project was to identify and define a data standard for obstetric anaesthetic care. The objectives included:

- Conducting an evidence-based review to identify key data elements.
- Engaging stakeholders across professional, technical, and public domains.
- Drafting a structured information standard that supports both clinical practice and national data aggregation.
- Providing recommendations for integration into existing national datasets such as the Digital Maternity Record Standard (DMRS) and Maternity Services Data Set (MSDS).
- Outlining implementation pathways and necessary assurance processes.

## 1.3 Methodology and Stakeholder Engagement

A multi-stakeholder consultation model was employed to ensure inclusivity, relevance, and acceptability of the proposed standard. Engagement methods included:

- A targeted Expert Group Workshop with consultant obstetric anaesthetists.
- A Professional Webinar with broader clinical representation.
- A Service User Voice Workshop to gather lived experiences and consumer insights.
- Two national online surveys for professionals and service users.
- A System Supplier Webinar to assess digital implementation challenges and opportunities.

These consultations guided the evolution of the OAS, ensuring that the final dataset was reflective of both clinical realities and service user expectations, while also being mindful of documentation burden and system interoperability.

## 1.4 Key Themes and Findings

The report identifies several themes from the consultations that directly shaped the standard:

- Definitions and Clinical Clarity: Agreement on defining failed central neuraxial block (CNB) and aligning terminology with existing NHS and NICE guidance.
- Informed Decision-Making: Emphasis on capturing accessible, accurate information about pain relief options before and during birth.
- Timeliness and Responsiveness: Capturing key timestamps (e.g., analgesia request to administration) to measure service delivery and patient experience.
- Data Utility and Governance: Structured fields for anaesthetic complications, effectiveness of analgesia, and maternal outcomes using standardised tools like the Clavien-Dindo classification.
- Usability and Language Sensitivity: Recommending terms such as "failed" instead of "failure," and aligning language with inclusive, person-centred care principles.
- Implementation Challenges: Concern over documentation burden balanced with the need for quality data capture, addressed through tailored implementation guidance and system design recommendations.

## 1.5 The Standard

At its core, the OAS model is structured around the Labour and Delivery record, with nested procedure components for:

- Labour Analgesia
- Surgical Procedures
- Anaesthesia

Data items are coded using SNOMED CT concepts and other national standards, ensuring semantic interoperability. The model allows for documentation of multiple labour episodes and complex clinical pathways. Time-based metrics and patient outcomes such as discharge destination and maternal death (if applicable) are also supported.

## 1.6 Recommendations

The final report sets out the following key recommendations for national adoption and implementation:

1. Integration of the OAS into the Maternity Services Data Set (MSDS).
2. Engagement with NHSE to request creation and maintenance of necessary SNOMED CT codes.
3. Seek assurance from the Data Alliance Partnership Board (DAPB) to enable mandated use across provider systems.
4. Include OAS in the NHSE Data Standards Directory for visibility and alignment with wider digital initiatives.
5. PRSB should undertake further supplier engagement through its Partnership Scheme to test the standard and support its effective implementation by system suppliers.
6. Establish an Implementation Support Programme, including:
    - Guidance for assessing system conformance with the standard.
    - Professional training on the digital use of the standard within care records.
    - Consideration of procurement frameworks to enforce adoption.

## 1.7 Conclusion

The OAS represents a significant step forward in closing data gaps related to obstetric anaesthetic care. It responds to urgent safety, quality, and equity concerns in maternity services while enabling improved clinical governance through consistent, structured data.

Developed through an inclusive and evidence-informed process, the standard supports early identification of safety issues, benchmarking across services, and the provision of more responsive and personalised care.

This report should be read alongside the full OAS data model and implementation materials, which are intended to support system suppliers and care providers in operationalising the standard. These materials will be made available on the PRSB website.

# 2 Introduction

## 2.1 Background and Context

The Obstetric Anaesthetists' Association (OAA) Quality and Outcomes Subcommittee (QOSC) produced the Making Anaesthetic Care Count report (2021) outlining the case for a strategy to improve recording of anaesthetic care in national NHS datasets.

Historically, the OAA organised the National Obstetric Anaesthetic Database (NOAD) to audit patterns of practice and complications of anaesthesia. This was discontinued in 2015 as data collection was difficult due to the difficulties anaesthetists experienced sourcing data and a relatively low (60%) national response rate (Bamber J. H., Lucas, Plaat, & Russell, 2020).

The Getting It Right First Time (GIRFT) Programme National Specialty Report "Anaesthesia and Perioperative Medicine" (Snowden & Swart, 2021) highlighted significant gaps in clinical coding for anaesthetic and perioperative activities, which are often excluded or minimally detailed compared to other specialities. This lack of mandated coding means anaesthesia remains a "silent majority" in hospital data, presenting both a challenge and an opportunity to improve coding accuracy and enhance care quality. It highlighted that caesarean births are by far the most common inpatient surgical procedure.

One of the key recommendations of the report, to be implemented within 12 to 24 months, is to mandate a specific dataset which effectively captures the hospital activity and input for the anaesthetic and perioperative medicine team as a priority. A specific action within this recommendation is to investigate and improve the accuracy of procedural coding for caesarean sections as necessary, using a regular process of data validation involving a responsible named clinician and a clinical coding team representative.

Bamber et al (2019) undertook a three-stage Delphi survey process to identify the quality indicators considered the most relevant to obstetric anaesthesia.

From an initial list of 31 quality indicators, 11 indicators were rated as extremely important by > 90% of participants in at least two panels. These 11 indicators were presented to stakeholders; they were asked to vote for the five indicators they considered most relevant and useful for assessing and benchmarking the quality of obstetric anaesthesia provided. The indicators chosen were:

- the percentage of women who had an epidural/combined spinal-epidural for labour analgesia with accidental dural puncture;
- the presence of guidelines for the referral of patients to an anaesthetist for antenatal review;
- whether there are dedicated elective caesarean section lists;

- the availability of point-of-care testing for estimation of haemoglobin concentration;
- and the percentage of epidurals for labour analgesia that provided adequate pain relief within 45 min of the start of epidural insertion.

The first and last of these indicators are related to clinical outcomes, whilst the other three are indicators of service provision/quality. It was identified that these indicators may be used for quality improvement and national benchmarking to support the implementation of quality standards in obstetric anaesthesia.

This initiative will also support the NHSE 'Reading the Signals' initiative, following the 'Reading the Signals' report (Department of Health and Social Care, 2022), to establish a national clinical measurement tool to provide an early signal when maternity and neonatal services might be developing safety issues enabling early preventative intervention.

There are several key issues to be addressed in the context of obstetric anaesthetics indicators:

- What is the minimum key data required to be captured to support policy making and improve care and quality outcomes?
- What is the optimum mechanism for facilitating and mandating the capture of data?
- How frequently should data be captured, for what purposes will it be used and how will it be presented and published?

The Professional Record Standards Body (PRSB) was commissioned by the Obstetric Anaesthetists' Association (OAA) to undertake a Discovery Phase for an Obstetric Anaesthetic Standard (OAS) to research and develop a draft information standard to identify a core dataset as a minimum viable product to provide a national dataset to inform policy and drive improvements in healthcare quality. This has progressed, and the OAA commissioned PRSB to undertake a Standard Development Phase.

## 2.2 Project Objectives and Scope

### Project Aim and Objectives

The overall aim is to identify the key minimum dataset to support policy making and improve care and quality outcomes for obstetric anaesthetic services.

The objectives of the Standard Development Phase were to:

- undertake research and evidence review to identify the core data elements
- draft an information standard for consultation
- identify questions to be addressed in consultation
- set out the plan, approach, costs, and recommendations for taking the work forward into Standard Development

An objective of the overall project is to make recommendations as to the most appropriate mechanism for collection and presentation of data, for example, the Digital Maternity Record Standard (DMRS) and the Maternity Services Data Set (MSDS).

## Scope

When considering a dataset, it is important to consider its purpose. There are three types of datasets to consider:

1. Obstetric anaesthesia dataset. Minimum to record routine anaesthetic care within the maternity care record/dataset. e.g.
    - an epidural inserted for labour analgesia
    - a combined spinal epidural inserted for labour analgesia
2. Obstetric anaesthetic record. Minimum to document obstetric anaesthetic care within the individual patient medical record. This type of record is more detailed than an obstetric anaesthesia dataset as it holds greater specificity. e.g.
    - type and size of epidural needle used.
    - the spinal level that the needle was inserted.
3. Quality metrics. To measure quality of obstetric anaesthetic care within a maternity unit. e.g.
    - whether the woman received a labour epidural analgesia within 45 minutes of the request.

These types are not necessarily mutually exclusive. For example, a common complication such as inadvertent dural puncture could be part of the dataset, anaesthetic record, and a quality metric.

Our aim is to focus on developing a minimum reference set and to decide what should be included. Since the aim is to advocate at least part of the reference set to be included in future iterations of the DMRS/MSDS then the number of items to be included will be minimal but core. The challenge is to have consensus on what items should be included. This will be determined partly by the ease by which the item can be recorded for inclusion and whether it has an associated SNOMED-CT code. Such a reference set may be supplemented by an appendix ‘wish-list’ for future consideration for inclusion e.g. if an appropriate SNOMED-CT code was introduced.

The NOAD dataset was used as the basis for the first draft of the standard for consultation, including elements derived from additional sources as outlined in the OAS Discovery Report. This was further refined through consultation with different stakeholder groups.

The scope also includes exploration of how this data might be captured, presented and published; it is recognised that NHSE policy support would be required to facilitate the inclusion in any existing national mandatory data collection.

The scope of this project specifically excludes the development of an information standard which defines the data elements required to automate the anaesthetic chart information used in the operating theatre environment. It also excludes any other information required at point of care relating to anaesthesia e.g. informed decision making.

The purpose of this project is not to define what is recorded in the individual patient care record, but rather what data is extracted from the patient care journey to be included as part of national maternity dataset. The focus of the OAS is not at individual level but population (local and national) level. Collecting and aggregating patient data locally and nationally will help identify Quality Improvement (QI) needs.

## 2.3 Benefits

The NHS national data sets collect information from care records, systems and organisations on specific areas of health and care. This is used to inform policy and monitor and improve care. It is recognised that historically, little data has specifically been recorded directly in relation to anaesthesia. This in part is due to anaesthetic information being subsumed within the wider procedure codes which are referenced for payment purposes and, therefore, which hospitals are directly incentivised to utilise. This project seeks to facilitate drilling down into the obstetric anaesthetic data to enable improvement of care and quality outcomes specific to this speciality.

Arising from a recommendation in the Kirkup East Kent report (Department of Health and Social Care, 2022), NHSE has set up a committee to produce a national clinical measurement tool that would signal early evolving patient safety concerns in local maternity and neonatal services so to trigger timely preventive intervention. Selecting clinical outcome measures for obstetric anaesthesia is problematic mainly because there is so little current mandated national collection of measures directly related to anaesthesia. This dataset seeks to inform the relevant clinical outcome measures.

# 3 Methodology and Consultation Approach

## 3.1 Methodology

The PRSB methodology encourages input from a range of health and care professionals, and service user voices using a several techniques to facilitate accessible consultations. Online group discussions were recorded to facilitate comprehensive analysis.

Effective collaboration in several of the virtual meetings was supplemented using Miro boards, which allowed participants to continue sharing their thoughts outside of the discussions during meetings.

Information to develop the standard was gathered from the following **stakeholder participation**:

a) 1 online workshop with experts in the obstetric anaesthetic practice;
b) 1 online webinar with obstetric anaesthetists and other health and care professionals;
c) 1 online workshop with service user voices;
d) 2 online surveys, disseminated nationally to facilitate as broad input as possible from professionals and service users;
e) 1 online webinar with electronic patient record (EPR) system suppliers.

Themes emerging from these engagements are detailed in Section 4.

Details of the project team can be found in Appendix A.

## 3.2 Expert Group Workshop

The target recruitment for the Expert Group Workshop was anaesthetists specialising in obstetrics to provide their views on the emerging data elements to be included in the standard. In addition, the OAS Project Board was invited to join the discussion.

A standard invitation including an option to invite colleagues with an interest to join the discussion was issued:

- By email via the OAA secretariat to their membership.
- By direct email to the project board.

The email contained a link to a registration form on the PRSB HubSpot Customer Relationship Management (CRM) system, which automatically generated a Microsoft Teams invitation to the Workshop.

An expert group workshop was held on 12/12/2024 via Microsoft Teams. There were 27 attendees in total, 9 attendees were members of the project team. The remaining 18 attendees were other experts in obstetric anaesthesia. The attendee list can be found in Appendix B. The topics discussed included defining what constitutes as a failed central neuraxial block (CNB), and a review of the proposed minimum dataset.

## 3.3 Professionals Webinar

Recruitment to the wider professional group was via email sent out through a HubSpot email to the general list of stakeholder organisations listed in the Project Initiation Document. This asked them to forward an invitation to their members with an interest in obstetrics with specific reference to analgesia and anaesthesia.

The email contained a link to a registration form created on HubSpot which automatically created a Microsoft Teams invitation to the online webinar. Several expressions of interest had already been received, these individuals were also invited using the same mechanism.

The webinar with obstetric anaesthetists and other health and care professionals was held on 04/02/2025 via Microsoft Teams. There were 20 attendees in total, 7 attendees were members of the project team. The remaining 13 attendees were a group of various professionals in the obstetric anaesthetic field. The attendee list can be found in Appendix C. The topics discussed included reviewing a proposed definition of a failed CNB, and a review of the updated draft minimum dataset.

## 3.4 Service User Voice Workshop

The decision by the project team was that the representative view of the service user would be gathered through those organisations with direct contact with them on a day-to-day basis. To recruit organisations and individuals in this category, the project team's Service User Voice Lead sought expressions of interest to participate in the group. This was initially done by using closed Facebook groups to circulate links to a registration form on HubSpot. On completion of the period for expression of interest, the submissions were reviewed to ensure group provided representation from different demographics and geological areas, and from that we invited the final group of ten participants to the workshop. Service User Voices were involved as they could represent more voices in the Workshop beyond just any one individual's personal experience. The group size was limited to ensure all participants would be given an opportunity to be heard and get involved.

The workshop was held with service user voices on the 25/02/2025 via Microsoft Teams. There were 16 attendees in total, 6 attendees were members of the project team and project board. The remaining 10 attendees were a group of various service users and individuals that provided a voice for service users unable to attend. The attendee list can be found in Appendix D. The format of the session included reviewing examples of patient journeys and an overview of the draft model to identify gaps or issues in the proposed standard.

## 3.5 Online Surveys

Two online surveys were circulated to both health professionals and service users. The professionals' survey went live on 25/02/2025, whilst the service user's survey went live on 04/03/2025. Both surveys closed on 28/03/2025. There was a total of 164 responses to the professionals' survey, with 96 responses analysed due to incomplete responses. There was a total of 51 responses to the service user's survey, with 33 responses being analysed due to incomplete responses or participants not meeting the eligibility criteria to provide feedback.

Details of the surveys and the responses can be found in the accompanying Survey Report. Findings from the survey that directly affected the development of the OAS can be found in Section 4 of this report.

## 3.6 System Supplier Webinar

The webinar was held with representatives from EPR system suppliers on 24/04/2025 via Microsoft Teams. There were 16 attendees in total, 7 attendees were members of the project team. The remaining 9 attendees represented several different system suppliers. The attendees list can be found in Appendix E. The webinar aimed to inform system suppliers of the upcoming publication of the OAS, give an overview of the data captured in the OAS, and seek feedback on any anticipated challenges with implementation.

# 4 Findings and Recommendations

| Theme/Finding | Stakeholder Group | Recommendations |
|---|---|---|
| **Failed CNB** | | |
| General approval for failed CNB regarding labour analgesia to be defined as 'lack of adequate pain relief by 45 minutes after start of placement' / 'resite or abandonment of this form of analgesia during labour.' | Expert group / Professionals group | Incorporate approved definitions into the data model. This will be added in the implementation guidance. |
| Highlight the difference between a recognised technical failure to provide CNB versus unexpected failure of provided CNB to deliver expected analgesia or anaesthesia. | Expert group | Ability to distinguish between reasoning to be added to the data model |
| Desire for further guidance. | Professionals group | Provide appropriate implementation guidance, particularly around anaesthesia, to support delivery. |
| **Informed Decision-Making** | | |

| | | |
|---|---|---|
| Information about pain relief options needs to be accurate and accessible before and during birth. | Service user voices group | Include section that captures information about informed decision making. |
| There should be harmonisation of training job grades when recording role. | Professionals group | Add this to implementation guidance. |
| **Delivery** | | |
| Inclusion of abdominal wall block as a reason for use of ultrasound. | Expert group | Add reason for ultrasound use in model |
| Data is limited to caesarean birth surgery rather than generic obstetric surgery. | Expert group | Allow for obstetric anaesthetic data to be recorded against other types of obstetric surgeries (e.g., assisted vaginal delivery, perineal tear repairs, cervical cerclage.) |
| It is important to record the time that the decision (to change delivery method) was made, who made it, and their role. | Professionals group | This is captured in the maternity record. |
| **Timeliness of the Anaesthetist Provided Analgesia** | | |
| Standardised definitions of data items within this group. | Expert group | Ensure that definitions for these data items are refined and precise in the model to reduce ambiguity. |
| The time from request to administration of pain relief is a critical metric for improving service delivery. Differentiating between systemic delays and individual clinician response times was emphasised. | Service user voices group | The inclusion of data items to measure the timeliness of anaesthetist provided analgesia can be used as a metric for measuring and improving service delivery. |
| Measuring the effectiveness of pain relief using different pain rating scales. | Service user voices group, Professionals group | Allow for recording of alternative pain measurement methods. |
| **General Anaesthesia** | | |
| Multiple modes of general anaesthesia may be used. | Expert group | Ensure that the cardinality of general anaesthesia mode allows for multiple entries. |
| Multiple airway modes of general anaesthesia may be used. | Expert group | Ensure that the cardinality of general anaesthesia allows for multiple entries. |
| Desire to link mode of birth and type of anaesthesia. | Professionals group | Create links between the two data item in data model |
| **Complications** | | |

| | | |
|---|---|---|
| Inclusion of neuraxial/epidural abscesses. | Expert group | Add neuraxial and epidural abscesses to complications list in defined SNOMED CT. |
| Concerns raised around balancing technical medical terminology with patient accessibility. | Service user voices group | As the record will be accessed by healthcare professionals, medical terminology is included to reduce subjectivity. Business rule may be included advising that any patient-visible parts of the record include clear definitions and descriptions of medical terminology. |
| Capturing the impact of complications from a service-user perspective, as well as other service-user outcomes. | Service user voices group / Professionals group | Allow for the recording of the Clavien Dindo Scale of Surgical Complications to capture impact of complications. |
| **Importance of Standardised Data Collection** | | |
| Lack of consistent national data hinders ability to identify trends, assess patient outcomes, and improve care. | Service user voices group | The minimum dataset developed during this project should be widely implemented to ensure uniform data recording and utilisation. |
| Challenges in defining a minimum dataset, balancing the recording of key data and avoiding excessive documentation burden. Differing perspectives between clinicians and service users highlight the need for a multi-stakeholder approach. | Service user voices group | The minimum dataset should be tested across different stakeholder groups to ensure that only the key data needed to improve quality of care and outcomes in recordable. |
| **Consideration of Demographic Data** | | |
| Suggestion that demographic data be linked to recorded complications and outcomes. | Service user voices group, Professionals group | Demographic data from the DMRS will be captured in the same record as the complications and outcomes from the OAS. |
| **Language Used in the Standard** | | |
| Use of word “failure” may implicitly ascribe blame. | Professionals group | Where possible, the wording should be changed to “failed” rather than “failure”, except in instances where the use of the word “failure” is clinically acceptable. |
| Use of caesarean birth (rather than caesarean section) should be used in the standard to be consistent with NICE. | Professionals group | Use NICE aligned language of caesarean birth. Add updated NICE definition to implementation guidance. |

| Change of language from elective/emergency. | Expert group, Professionals group | Ensure language is compatible currently used NHS terminology, and language used in existing maternity datasets. |
| --- | --- | --- |
| **Documentation Burden** | | |
| Concerns that the amount of data required for capture will add additional burden to staff. | Professionals group | Provide implementation guidance that system design needs to have an effective user interface that allows users to quickly and easily input information. This include prepopulating any known information. |

**Table 4.1 Findings that emerged from the Obstetric Anaesthetic Standard consultations.**

Themes emerged from our consultations that did not have a direct impact on the OAS. Appendix F provides a high-level overview of additional themes that did not impact the development of the OAS.

# 5 The Development of OAS

## 5.1 The Standard

At the core of this model is the Labour and Delivery record, which can be repeated to support multiple labour episodes if needed. It begins with a categorisation of the type of labour and delivery, coded using SNOMED CT concepts drawn from a standardised maternal delivery procedures reference set. This enables clear distinction between assisted and unassisted deliveries and lays the foundation for nesting additional procedural and anaesthetic events relevant to the delivery episode. Once the mode of delivery is established, the model branches into specific records for labour analgesia, surgical procedures, and anaesthetic procedures, thereby reflecting the often complex nature of anaesthetics maternity care.

Each component within this nested structure is aligned to SNOMED CT value sets, ensuring semantic consistency across systems. The Labour analgesia record entry allows for granular documentation of procedures such as patient-controlled analgesia, including coded entries for both procedures and their complications. Importantly, the model supports the documentation of clinical actions taken in response to complications.

Surgical procedures, for example, caesarean sections or manual placenta removal, are also accommodated, with supporting fields for procedure codes and performer grade. The Anaesthesia record entry captures anaesthetic procedures and their maintenance, also including structured support for recording related complications and interventions. This inclusion supports a thorough audit trail and bolsters the dataset’s utility for anaesthetic governance.

The model also captures timings associated with key events, especially around pain management. Timeliness data such as the time analgesia was requested, administered, and became effective are critical for evaluating care responsiveness and patient experience. Additionally, outcome measures such as maternal death (if applicable), informed decision-making (through antenatal and postnatal reviews), and discharge destination are recorded

## 5.2 Reuse of other PRSB data concepts

Where possible, existing PRSB data concepts were reused during the design of the standard. These have either been developed for the Core Information Standard or are part of PRSB's Digital Maternity Record Standard.

## 5.3 Terminology

Where possible, terminology including SNOMED CT and NHS data dictionary terms has been provided against data items. These have been built into the information model and will be available to system supplier with implementation guidance, where necessary.

SNOMED CT terms are being developed for data items that are without. These SNOMED CT terms will be included in the standard with details added to the implementation guidance as and when available or when those codes are published.

## 5.4 Provenance data

Provenance data, and information about those recording and present at touchpoints, have been removed from the standard to make it simpler to read and understand. This information is still essential and is defined in a separate PRSB information model (PRSB, 2023). This is explained further in the general implementation guidance document.

## 5.5 Implementation guidance

The standard's implementation guidance was developed through the series of consultations and discussions with project clinical leads, to enhance understanding of how the standard can be applied practically. Most of this guidance has been incorporated into the standard at both section and element levels. A document titled "General implementation guidance for PRSB standards" provides overarching guidance and clarifies the standard's structure and content.

# 6 Conclusion and Recommendations

## 6.1 Recommendations

1. The OAS should be included as into the Maternity Service Dataset (MSDS).
2. Engagement with NHSE terminology team to request undefined SNOMED CT codes for the OAS are developed and that there is a defined process for maintaining the codes.
3. Seek Data Alliance Partnership Board (DAPB) assurance for the OAS. DAPB assurance would require providers to comply with the standards and to comply they will require systems that conform to the standards.
4. Ensure that the OAS is included in the NHSE's data standards directory.
5. PRSB should undertake further supplier engagement through its Partnership Scheme to test the standard and support its effective implementation by system suppliers.
6. Consider an implementation support programme to include:
    a) Consideration of how conformance with the ISN should be assessed and work with procurement framework leads to agree and implement approach.

b) Training for health and social care professionals in all systems within their organisation that use the OAS, and how to use different sections of the record to ensure personalised and effective care.

## 6.2 Conclusions

The PRSB has an inclusive approach to the development of information standards. As such, a rich mixture of information, opinions, experiences, and knowledge has been shared throughout the course of this consultation by members of the public, service user voices, obstetric service professionals, and system suppliers. A detailed analysis of all the information gathered has been undertaken in the production of this final report and the OAS.

We would like to thank everyone that took the time to support the development of this standard for their valuable input in helping shape and define the OAS.

This report should be read in conjunction with the OAS data model, and additional materials that supported the development of this report that will be placed on the PRSB website over the coming weeks and months.

# 7 References


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# 8 Appendix A - Project Team

| Name | Role |
|---|---|
| Alice Ford | Communications and Engagement Consultant |
| Alison Brown | Project Support Manager |
| Andrew Brownless | Senior Project Analyst |

| Andy Wright | Communications Lead |
|---|---|
| Caitlin O’Donnell | Project Analyst |
| Jim Bamber | Clinical Lead |
| Kelly Cheng | Project Analyst |
| Kingsley Ejeh | Project Manager / Lead Analyst |
| Pauline Swan | Project Manager |
| Siobhean McCarthy-Perham | Service User Voice Lead |
| Steve Bentley | Clinical Safety Officer |

**Table 8.1. Names and roles of project team members.**

# 9 Appendix B - Expert Group Attendance List

| Organisation | Role |
|---|---|
| Barts Health NHS Trust | Consultant Anaesthetist |
| Basildon Hospital | Consultant Anaesthetist |
| Belfast Health and Social Care Trust | Consultant Anaesthetist |
| Cardiff and Vale UHB - Anaesthetics | Consultant Anaesthetist |
| East Suffolk and North Essex NHS Foundation Trust | Consultant Anaesthetist |
| Frimley Health NHS Foundation Trust | Consultant Anaesthetist |
| Imperial College Healthcare NHS Trust | Consultant Anaesthetist |
| Kings College Hospital NHS Trust | Consultant Anaesthetist and Lead for Obstetric Anaesthetics |
| Liverpool Women’s Hospital | Consultant Anaesthetist |
| London North West University Healthcare NHS Trust | Consultant Anaesthetist |
| NHS Greater Glasgow and Clyde | Consultant Anaesthetist |
| Nottingham University Hospitals NHS Trust | Anaesthetic Consultant |
| Obstetric Anaesthetists' Association | Obstetric Anaesthetist, Honorary Treasurer and Chair of Quality and Outcomes Subcommittee at Obstetric Anaesthetists' Association |
| Southern Health & Social Care Trust | Consultant Anaesthetist |
| Torbay And South Devon NHS Foundation Trust | Obstetric Anaesthetic Lead |
| University Hospital of Wales | Consultant Anaesthetist |

**Table 9.1 Organisations and roles of Expert Group attendees – excluding PRSB team members.**

## 10 Appendix C – Professional Webinar Attendance List

| Organisation | Role |
|---|---|
| Blackpool teaching hospital | Maternity Theatre Coordinator |
| Blackpool Teaching Hospitals NHS Foundation Trust | Consultant Anaesthetist (Obstetric Lead) |
| Liverpool Women's Hospital Pharmacy | Pharmacist |
| London North West University Healthcare NHS Trust | Consultant Anaesthetist |
| NHS England | Chief Midwifery Information Officer |
| NHS England | Consultant Anaesthetist |
| NHS Greater Glasgow and Clyde | Consultant Anaesthetist |
| Royal College of Anaesthetists | Representative for Digital, Technology and the use of NHS Data |
| Royal College of Emergency Medicine | Consultant Emergency Physician |
| SCATA / Bolton Foundation Trust | Chairman / Consultant in Anaesthesia & Intensive Care Medicine |
| The Royal College of Anaesthetists | Council Member |

**Table 10.1. Organisations and roles of Professional Webinar attendees – excluding PRSB team members.**

## 11 Appendix D – Service User Voice Workshop Attendance List

| Organisation | Role |
|---|---|
| Ashford and St. Peter's Maternity Voices Partnership | MNVP Lead |
| King's College London | Student Midwife |
| N/A | Lay Member and Service User |
| N/A | Service User |
| Northumbria Maternity Voices Partnership | MNVP Lead |
| Nottingham and Nottinghamshire Maternity Voices Partnership | MNVP Rugby Engagement Lead |
| RCOG Women's Network | National Strategic SUV Lead/Vice Chair |
| Sheffield Maternity Voices Partnership | Vice Lead |
| Surrey and Sussex Healthcare Maternity Voices Partnership | MNVP Co Lead Sussex |
| Surrey and Sussex Healthcare Maternity Voices Partnership | MNVP Co-Lead |

Table 11.1 Organisations and roles of Service User Voice Workshop attendees – excluding PRSB team members.

## 12 Appendix E – System Supplier Webinar Attendance List

| Organisation | Role |
|---|---|
| Magentus | Digital Midwife |
| Magentus | Product Owner (Maternity) |
| NHS Wales | Maternity Clinical Informatics Lead |
| Oracle | Senior Consultant |
| Oracle | Senior Pharmacy Executive |
| Oracle | Pharmacy Analyst/Design Consultant |
| Oracle | Principal Consultant |
| Oracle | Principle Consultant - Configuration |
| Oracle | IT Consultant |
| Dedalus | Senior Implementation Consultant |

Table 12.1. Organisations and roles of System Supplier Webinar attendees – excluding PRSB team members.

## 13 Appendix F – Additional Consultation Themes

| Additional Themes |
|---|
| Breastfeeding and medication interactions. |
| Challenges in defining a minimum dataset. |
| Clear and empathetic communication is as important as clinical effectiveness, as when this is lacking it can erode trust and confidence. |
| Desire for interoperability of data between trusts. |
| Ensuring equity in maternity care. |
| Impact of analgesia and anaesthesia on recovery and postnatal care. |
| Importance of continuity of care. |
| Importance of patient-centred outcomes. |
| Lack of consistent national data. |
| Recording maternal death. |
| The complexity of informed consent. |
| The need to capture patient experience. |
| The role of birth partners and advocates. |
| The role of communication in maternity care. |

Table 13.1 Additional themes arising from consultation (not including surveys).

# 14 Appendix G – Sections and subsections derived from DMRS

| Sections and subsections | In DMRS? |
|---|---|
| Labour and delivery | |
| Labour and delivery | Yes |
| Labour analgesia record entry | No |
| Ultrasound use | No |
| Surgical Procedure | Yes |
| Anaesthesia record | No |
| Ultrasound use | No |
| Timings | |
| Timeliness of anaesthetist provided analgesia | No |
| Maternal death | Yes |
| Informed decision | |
| Antenatal anaesthesia review | Yes |
| Postnatal anaesthesia review | Yes |
| Discharge destination | |
| Destination type | Yes |

**Table 13.1 Sections and subsections derived from DMRS**