

MDSAS G-CLOUD 15

Service Definition



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1. Executive Summary

MDSAS delivers nationally significant clinical registries, specialised service management solutions, quality assurance platforms, operational clinical systems and outcomes management services supporting healthcare providers, commissioners, clinical networks, researchers and patients across the NHS.

Over more than two decades, MDSAS has developed and operated healthcare information systems that support direct patient care, specialised commissioning, service assurance, patient safety, research and healthcare transformation. Unlike many software suppliers, MDSAS combines technology expertise with extensive operational experience managing nationally commissioned healthcare services.

The MDSAS National Clinical Registry, Operational Intelligence, Quality Assurance and Outcomes Management Platform provides a secure, scalable and configurable environment capable of supporting disease registries, specialised services, clinical audits, patient safety programmes and long-term outcomes monitoring. The platform enables organisations to collect, validate, analyse and report high-quality healthcare information whilst supporting operational decision-making, governance and continuous improvement.

Our solutions have evolved through successful delivery of individually bespoke nationally recognised programmes including the National Immunoglobulin Database, National Haemoglobinopathy Registry, International Burn Injury Database (iBID) and National Spinal Cord Injury Database. These services demonstrate that modern registries are no longer passive repositories of information. They have become clinical operational assets supporting referral management, medicines governance, capacity planning, patient safety monitoring, clinical audit and service transformation.

The platform combines registry functionality, workflow management, interoperability, analytics, business intelligence, clinical intelligence and operational reporting within a single environment. Through configurable dashboards, benchmark reporting and advanced analytics, organisations gain real-time insight into service performance, patient outcomes and operational pressures.

MDSAS is committed to delivering secure services and solutions that align with NHS England priorities, support clinicians in direct patient care, deliver healthcare improvement and provide measurable value to patients, clinicians and commissioners.

2. About MDSAS

MDSAS is a specialist healthcare technology company focused on the design, implementation and operation of digital services supporting healthcare delivery and service improvement.

The organisation works closely with NHS England, NHS Trusts, specialised commissioning teams, clinicians, healthcare networks and patient groups to develop solutions addressing complex healthcare challenges. This collaborative approach ensures services are designed around real-world clinical and operational requirements.

MDSAS brings together expertise in:

- Clinical registries and audit
- Specialised commissioning services
- Operational clinical systems
- Outcomes management
- Clinical intelligence
- Data analytics and business intelligence
- Interoperability and integration
- Information governance and cyber security
- Quality assurance and benchmarking
- Research and innovation support
- Cyber security services

Through long-term operation of nationally commissioned services, MDSAS has developed extensive knowledge of governance frameworks, stakeholder engagement, service assurance and healthcare transformation. This operational experience provides valuable insight that informs both platform development and service delivery.

3. Why MDSAS

Successful healthcare registries require much more than technology. They require governance, clinical engagement, data quality, security, sustainability and operational expertise.

MDSAS provides a mature platform combined with proven clinical service delivery experience gained through the operation of nationally significant NHS services.

Key differentiators include:

Proven National Registry Expertise

MDSAS manages large-scale national services supporting clinicians, commissioners and healthcare organisations across the United Kingdom.

Clinical and Operational Focus

Our systems support direct patient care, service management and quality improvement rather than simply storing information.

Continuous Innovation

Platforms continually evolve in response to changing healthcare priorities, emerging technologies and stakeholder requirements.

Long-Term Partnership

We work collaboratively with customers to ensure services continue to deliver value throughout their lifecycle.

Proven Delivery Record

MDSAS solutions support nationally commissioned programmes involving thousands of users, hundreds of participating organisations and complex healthcare pathways.

4. National Clinical Registry, Operational Intelligence, Quality Assurance and Outcomes Platform

The MDSAS platform provides a comprehensive environment for collecting, managing and analysing healthcare information across local, regional and national healthcare programmes.

The platform supports:

- Disease registries
- Clinical audit programmes
- Specialised commissioning services
- Operational clinical systems
- Patient safety monitoring
- Outcomes management
- Quality assurance programmes
- Capacity planning
- Research infrastructure

The platform manages the complete lifecycle of healthcare information from patient registration and referral through treatment, follow-up and outcomes assessment.

Data can be collected through intuitive web interfaces, integrated systems, secure APIs and automated data exchange processes. Comprehensive validation frameworks ensure information remains accurate, complete and clinically meaningful.

Configurable workflows support a variety of service models including referral management, prescribing governance, specialist review processes, annual reviews, screening programmes, outcomes collection and operational monitoring.

Organisations benefit from secure access to trusted information that supports decision-making at patient, provider, network and national level.

5. Key Benefits

Supports Direct Patient Care

Operational workflows support treatment decisions, referrals and service delivery.

Improves Patient Safety

Surveillance, alerting and monitoring capabilities help identify risks earlier.

Strengthens Specialised Commissioning

Provides intelligence supporting planning, forecasting and assurance.

Reduces Administrative Burden

Automation and interoperability reduce duplication and improve efficiency.

Enables National Benchmarking

Providers can compare performance and outcomes against peers.

Improves Data Quality

Validation frameworks improve accuracy, completeness and consistency.

Supports Research and Innovation

High-quality data supports approved audit, evaluation and research activities.

6. NHS England Registry Best Practice Alignment

MDSAS has extensive experience supporting healthcare services aligned with recognised registry best practice principles.

Our solutions support:

Strong Governance

Clearly defined governance arrangements provide accountability, transparency and oversight.

Clinical Leadership

Clinical users are engaged throughout solution design, implementation and ongoing development.

Data Quality

Validation rules, quality dashboards and exception reporting support completeness and accuracy.

Outcome Measurement

Longitudinal data collection enables meaningful assessment of treatment effectiveness and service performance.

Benchmarking

Providers can compare performance against peers and national standards.

Continuous Improvement

Reporting and analytics support quality improvement programmes and evidence-based decision-making.

Research Readiness

Structured datasets support service evaluation, audit and approved research activity.

These capabilities help ensure registries provide value beyond data collection and contribute directly to healthcare improvement.

7. Registry Maturity Framework Alignment

Registry assessments across the MDSAS portfolio have demonstrated the importance of strong governance, data quality, interoperability and stakeholder engagement.

The MDSAS platform incorporates lessons learned from national registry maturity reviews and supports continuous improvement across several domains:

- Organisational governance
- Clinical engagement
- Data quality

- Interoperability
- Reporting capability
- Outcome measurement
- Research readiness
- Patient involvement

Integrated quality reporting provides visibility of submission performance, completeness and compliance with agreed standards. Benchmarking functionality allows organisations to identify areas of variation and target improvement activities.

By supporting registry maturity and continuous improvement, the platform helps services maximise the value derived from healthcare information.

8. Information Governance and Cyber Security

Information governance and cyber security services are fundamental principles integrated into all MDSAS services.

MDSAS operates a comprehensive Information Security Management System certified to ISO 27001. Quality Management processes are supported through ISO 9001 accreditation, while environmental management is governed through ISO 14001 principles.

Additional assurance includes:

- Cyber Essentials Plus
- NHS Data Security and Protection Toolkit compliance
- Penetration testing
- Vulnerability management
- Security monitoring
- Business continuity planning

Security controls incorporated throughout the platform include:

Identity and Access Management

Role-based access controls ensure users only access information relevant to their role.

Multi-Factor Authentication

Additional authentication controls protect sensitive healthcare information.

Encryption

Data is encrypted both in transit and at rest.

Audit Logging

User activity is comprehensively recorded to support governance and assurance.

Threat Monitoring

Security monitoring supports identification and response to emerging risks.

Through a security-by-design approach, MDSAS helps organisations maintain confidence in the protection and integrity of healthcare information.

9. Clinical Intelligence and Innovation

Healthcare organisations increasingly require actionable intelligence rather than static reporting.

MDSAS supports this through advanced analytics, operational dashboards and real-time reporting capabilities.

Examples include:

NDRS Digital Flag Integration

Supporting identification of patients requiring specialist intervention and increased visibility of patient safety considerations.

Pharmacy Integration

The National Immunoglobulin Database includes pharmacy integration functionality that improves data quality and reduces burden and duplication of effort.

Burn Bed Bureau

Supporting visibility of specialist burns capacity and improving patient placement decisions.

Tele-Referral Services

Enabling rapid specialist review and improved access to clinical expertise.

Clinical Surveillance

Monitoring pathways, outcomes and adverse events to support proactive management.

These innovations help transform registries into operational tools that directly support healthcare delivery.

10. Interoperability and Integration

The MDSAS platform has been designed to support integration within modern healthcare environments.

Supported technologies include:

- HL7 messaging
- FHIR APIs
- Secure file transfer
- REST APIs
- Data warehouse integrations
- Identity management integrations

The platform has successfully supported integration with:

- Pharmacy systems
- Pathology services
- NHSBT systems
- Business intelligence platforms
- Electronic patient records

These capabilities reduce burden and duplicate data entry, improve data quality and enhance the user experience.

11. Reporting, Benchmarking and Analytics

Reporting is a core component of the MDSAS platform.

Users can access:

- Operational dashboards
- Clinical reports
- Benchmarking tools
- Quality assurance reports
- Outcomes analysis
- Capacity planning information
- Commissioning intelligence inc. SSQD dashboards and KPI's

Power BI integration supports the development of interactive reports and dashboards tailored to the needs of clinicians, managers, commissioners and national stakeholders. MDSAS provide a locally hosted secure Power BI instance, which allows for the secure delivery of reports containing patient identifiable and sensitive data.

Benchmarking capabilities help identify variation, highlight best practice and support targeted quality improvement initiatives.

12. Service Delivery, Training and Support

MDSAS follows a collaborative and agile delivery approach.

Projects typically progress through:

1. Discovery and requirements gathering
2. Solution design
3. Configuration and development
4. Testing and validation
5. Deployment
6. Continuous improvement

Training services include:

- User guides
- Online resources
- Webinars
- Classroom training
- Train-the-trainer programmes

Managed service offerings include:

- Service desk support
 - Incident management
 - Change management
 - Release management
 - Performance monitoring
 - Stakeholder engagement
 - Cyber security services
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13. Patient Safety Surveillance and Clinical Risk Management

A defining characteristic of the MDSAS service is its ability to support proactive patient safety surveillance across nationally commissioned healthcare services.

Unlike traditional registries that focus primarily on retrospective reporting, MDSAS solutions incorporate operational monitoring, exception reporting, clinical intelligence and surveillance capabilities that support the identification and management of patients at increased risk of adverse outcomes.

Across the MDSAS portfolio, these capabilities support:

- Monitoring of treatment appropriateness
 - Compliance with national clinical standards
 - Adverse event surveillance
 - Patient identification and flagging
 - Monitoring of critical clinical reviews
 - Screening programme assurance
 - Medicines governance and traceability
 - Capacity and waiting-list surveillance
 - Rehabilitation outcome monitoring
 - Service-performance oversight
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14. National Immunoglobulin Database Case Study

The National Immunoglobulin Database represents one of the most important medicines governance systems operating within the NHS.

Supporting more than 150 NHS Trusts, 21 Specialist Review and Advisory Panels and thousands of healthcare professionals, the service underpins governance of a treatment programme with annual expenditure exceeding £500 million.

The platform provides comprehensive support for:

- Patient registration
- Treatment approvals
- Prescribing governance
- Utilisation monitoring
- Product switching
- Supply management
- Forecasting
- Reporting and analytics
- Safety surveillance

Through pharmacy integration functionality, information can be captured more efficiently, improving accuracy and reducing administrative effort.

The platform plays a vital role in medicines stewardship, helping commissioners and clinicians ensure appropriate utilisation of scarce resources whilst maintaining equitable access to treatment.

Advanced reporting capabilities support demand forecasting, procurement planning and service assurance. This enables stakeholders to understand utilisation trends and respond proactively to evolving demand pressures.

The database has become a critical national asset supporting governance, patient safety and strategic planning.

15. National Haemoglobinopathy Registry Case Study

The National Haemoglobinopathy Registry provides operational clinical services supporting direct patient care for patients living with sickle cell disease, thalassaemia and related inherited blood disorders.

The registry provides a national platform enabling clinicians and commissioners to collect, analyse and report patient-level information across complex care pathways.

Functionalities include:

- Longitudinal patient tracking
- Newborn screening assurance
- Annual review monitoring
- TCD monitoring
- NHS BT integration
- Digital Flag programme support
- Adverse event surveillance
- Transfusion management

The registry plays an increasingly important role within national transformation programmes and helps support quality assurance activities across haemoglobinopathy networks.

By providing comprehensive visibility of patient outcomes and service performance, the platform supports continuous improvement and evidence-based commissioning.

16. International Burn Injury Database Case Study

The International Burn Injury Database (iBID) is recognised as one of the leading specialist burns data systems internationally.

The service extends significantly beyond a traditional registry and incorporates operational clinical services for direct patient care:

- Burn Bed Bureau
- Tele-referral services
- Major incident planning
- Capacity management
- Benchmarking
- Patient-reported outcomes
- Burns prevention
- Research support

The Burn Bed Bureau provides visibility of specialist bed availability and supports coordination of patient placement decisions during routine operations and major incidents.

Tele-referral functionality enables rapid patient access to specialist clinical expertise, improving clinical decision-making and supporting local healthcare providers in sometimes life-risk situations.

The platform generates operational, clinical and strategic intelligence that informs planning, service development and research, in addition to burns prevention activity.

Through comprehensive reporting and benchmarking capabilities, services can evaluate outcomes, monitor performance and identify opportunities for improvement.

17. National Spinal Cord Injury Database Case Study

The National Spinal Cord Injury Database is an operational clinical service that supports specialist rehabilitation services and provides critical intelligence for service management and planning.

Capabilities include:

- Referral management
- Admission prioritisation
- Waiting list oversight
- Capacity monitoring
- Rehabilitation planning
- Outcome measurement
- Activity monitoring
- Pressure ulcer surveillance

The platform provides visibility of service demand, enabling stakeholders to understand pressures across specialist spinal injury services.

Data collected through the system supports service evaluation, resource planning and strategic decision-making. Longitudinal outcomes information enables organisations to evaluate effectiveness and identify opportunities for improvement.

The service demonstrates how registry platforms can contribute directly to operational management and patient care.

18. Accessibility, Business Continuity and Exit Management

MDSAS is committed to delivering accessible services aligned with recognised WCAG accessibility standards.

Accessibility considerations are incorporated throughout design, development and testing activities to ensure services remain usable by the widest possible audience.

Comprehensive ISO 27001 and ISO 9001 certified, audited and tested business continuity and disaster recovery arrangements support service resilience.

These include:

- Automated backups
- Infrastructure monitoring
- Recovery testing
- Disaster recovery procedures
- Business continuity plans

Should a customer choose to transition away from the service, MDSAS provides structured offboarding support including data extraction, knowledge transfer and transition planning.

19. Conclusion

MDSAS delivers national operational clinical platforms that combine registry functionality, direct patient care support, patient safety surveillance, operational intelligence, quality assurance and outcomes management. Through nationally deployed services supporting specialised commissioning, healthcare providers and clinical networks, MDSAS enables organisations to transform healthcare information into actionable intelligence that improves outcomes, strengthens governance and supports continuous service improvement.

This service provides a proven, secure and future-ready platform capable of supporting the next generation of NHS registry, audit and operational intelligence programmes.